

CONTENT-CONDITIONAL EFFECTS IN PATIENT STORY ADVERTISING:
A DUAL-MECHANISM APPROACH TO HEALTHCARE NARRATIVE
PERSUASION

A Dissertation
presented to
the Faculty of the Graduate School
at the University of Missouri-Columbia

In Partial Fulfillment
of the Requirements for the Degree
Doctorate of Philosophy

by
JUSTIN F. WILLETT
Dr. Shelly Rodgers, Dissertation Supervisor
MAY 2025

© Copyright by Justin F. Willett 2025

All Rights Reserved

The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

CONTENT-CONDITIONAL EFFECTS IN PATIENT STORY ADVERTISING:
A DUAL-MECHANISM APPROACH TO HEALTHCARE NARRATIVE
PERSUASION

presented by Justin F. Willett,

a candidate for the degree of Doctor of Philosophy,

and hereby certify that, in their opinion, it is worthy of acceptance.

Professor Shelly Rodgers

Professor Amanda Hinnant

Professor Victoria A. Shaffer

Professor Benjamin R. Warner

ACKNOWLEDGEMENTS

Support for this dissertation was provided by Dr. Shelly Rodgers, Maxine Wilson Gregory Chair in Journalism Research at the Missouri School of Journalism.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES	iv
LIST OF FIGURES	vi
ABSTRACT	vii
Chapter 1: Introduction	1
Chapter 2: Literature Review	11
Background	11
Theoretical Framework	23
Chapter 3: Study 1	63
Method	63
Results	78
Discussion	101
Chapter 4: Study 2	149
Method	149
Results	158
Discussion	193
Chapter 5: General Discussion	255
Theoretical Framework	257
Practical Implications	292
Ethical Implications	328
Limitations and Future Research	351
Conclusion	379
TABLES	388
FIGURES	453
APPENDICES	471
BIBLIOGRAPHY	497
VITA	517

LIST OF TABLES

Table 1. Hypotheses and results for Study 1 and Study 2.	388
Table 2. Word count and reading ease scores for experimental stimuli.	411
Table 3. Descriptive statistics for Study 1 key variables.	412
Table 4. Content type effects on specific belief items (H1a-H1c).....	414
Table 5. Experience content effects on forecasting compared to other content types (H1d).....	415
Table 6. Content type effects on brand beliefs compared to control (H1e-H1g).....	416
Table 7. Content type effects on ad effectiveness compared to control (H1h-H1j).	417
Table 8. Character presence effects on narrative engagement mediators (H2a-H2d). ...	418
Table 9. Character presence effects on ad effectiveness (H2e-H2f).....	419
Table 10. Mediation effects of character presence on ad effectiveness through transportation and identification (H3a-H3b).....	420
Table 11. Mediation effect of psychological outcome content on attitude toward the brand through eudaimonic symbolism (H4).	422
Table 12. Content type × Character presence effects on specific belief items (H5a-H5c).	424
Table 13. Experience content × Character presence effects on forecasting (H5d).....	425
Table 14. Content type × Character presence effects on brand beliefs (H5e-H5g).	426
Table 15. Descriptive statistics for Study 2 key variables.	427
Table 16. Effects of plot structure on narrative engagement processes (H6a-d).....	429
Table 17. Effects of plot structure on ad effectiveness (H6e-f).....	430
Table 18. Effects of character presence on narrative engagement (H7a-d).....	431
Table 19. Effects of character presence on ad effectiveness (H7e-f).	432
Table 20. Mediation analysis of character presence effects on advertising effectiveness (H8).....	433
Table 21. Interaction effects of narrativity and character presence (H9a-b).	435
Table 22. Individual difference moderators of transportation (H10a-d).....	436
Table 23. Individual difference moderators of identification (H10e-h).	438
Table 24. Threat severity moderators (H11a-d).....	440

Table 25. Effects of transportation and identification on resistance processes (H12a-f).	441
Table 26. Effects of plot structure on resistance processes (H12g-i).	443
Table 27. Effects on emotional responses and ad effectiveness (H13a-e).....	444
Table 28. Healthcare moderators of transportation effects on ad effectiveness (H14a-f).	
.....	445
Table 29. Healthcare moderators of identification effects on ad effectiveness (H14g-l).	
.....	446
Table 30. Logistic regression results for character perception in character-absent conditions (H15, RQ1a).....	447
Table 31. Effects of character perception on outcome variables in Condition 2 (high narrativity, character absent) (RQ2).	448
Table 32. Comparison between actual character presence and character perception (RQ3).	
.....	449
Table 33. Individual differences as predictors of character perception (logistic regression) (RQ4).	450
Table 34. Healthcare involvement as predictors of character perception (logistic regression) (RQ4).....	451
Table 35. Relationship between character perception and ad effectiveness in character-absent conditions (RQ5).	452

LIST OF FIGURES

Figure 1. Theoretical variables of interest for patient story advertising.	453
Figure 2. Standardized effect sizes of content types across outcome measures.	454
Figure 3. Standardized effect sizes of character presence on narrative engagement and ad effectiveness.....	455
Figure 4. Path diagram for mediation hypotheses H3a-b.	456
Figure 5. Effects of plot structure on ad effectiveness.....	457
Figure 6. Effects of character presence on ad effectiveness.	458
Figure 7. Mediation pathways for character presence effects.....	459
Figure 8. Interaction effects on transportation (Figure 8a) and ad effectiveness (Figure 8b).	460
Figure 9. Individual difference moderator effects on transportation (Figure 9a) and identification (Figure 9b).	462
Figure 10. Threat severity moderator effects (non-significant).	464
Figure 11. Differential effects of transportation and identification on resistance processes.	465
Figure 12. Effects of transportation and identification on outcomes.	466
Figure 13. Healthcare attitudes moderate the effect of transportation on ad effectiveness.	467
Figure 14. Healthcare attitudes moderate the effect of identification on ad effectiveness.	468
Figure 15. Comparison of actual vs perceived character effects.	469
Figure 16. Patient Story Advertising Model (PSAM).	470

CONTENT-CONDITIONAL EFFECTS IN PATIENT STORY ADVERTISING:
A DUAL-MECHANISM APPROACH TO HEALTHCARE NARRATIVE
PERSUASION

Justin F. Willett

Dr. Shelly Rodgers, Dissertation Supervisor

ABSTRACT

Each year, nearly 2 million Americans receive a cancer diagnosis, a life-altering event fraught with uncertainty. Many turn to cancer center advertising, particularly patient story advertising, for reassurance and hope. This type of advertising employs emotionally compelling patient success stories to promote healthcare brand quality, potentially misleading vulnerable consumers by oversimplifying complex healthcare realities and creating unrealistic expectations. Existing research on patient story advertising primarily consists of descriptive analyses, leaving significant gaps in understanding the causal influence of story features on consumer decision making. This dissertation addressed the problem of how patient story advertising influences vulnerable healthcare consumers' decision making in the high-stakes context of cancer care.

Through two complementary experiments, this dissertation systematically examined how intrinsic features of cancer patient stories—content (what information they convey), characters (how patients are portrayed), and plot structure (how the story unfolds)—influence consumer perceptions and decision making. Study 1 ($N = 1498$) deconstructed patient stories into their component content types to understand how content (physical outcome, psychological outcome, experience) and character presence function in isolation. This systematic deconstruction revealed content-conditional effects that challenge universal enhancement assumptions. Study 2 ($N = 1058$) examined how plot structure (high vs. low narrativity) and character presence influence narrative

persuasion in complete patient stories that integrate all content types. Structural equation modeling was used to analyze relationships between story features, psychological mechanisms, and brand outcomes.

The findings revealed more complex patterns than predicted by existing narrative persuasion theories. Study 1 demonstrated that content type fundamentally moderates how story elements function, with physical outcome content showing unexpected versatility, psychological outcome content triggering critical evaluation, and experience content activating competing observational and simulation routes. Study 2 revealed that transportation and identification function as parallel rather than sequential processes with different downstream consequences—transportation primarily reducing resistance and identification primarily enhancing emotional engagement. Healthcare attitudes emerged as a critical moderator, with narrative effects stronger for consumers with less positive attitudes toward healthcare.

These findings collectively support the Patient Story Advertising Model (PSAM) developed through this research. This theoretical framework integrates theory from marketing, medical decision making, and psychology to explain how different story features work through distinct but complementary mechanisms to influence consumer healthcare decisions. The PSAM transforms understanding of narrative persuasion in healthcare contexts while providing evidence-based guidelines for developing more effective and ethical patient stories. This research informs debates about healthcare advertising regulation while fostering ethical storytelling practices that balance emotional engagement with informed decision making.

Chapter 1: Introduction

“Given the implications of stories for the narrative persuasion of consumers, nothing is less innocent than a story” (van Laer et al., 2014, p. 798).

Each year, nearly 2 million Americans receive a cancer diagnosis, a life-altering event defined by physical, emotional, financial, and psychological uncertainty (Berry et al., 2020; Collins, 2024; Hlubocky et al., 2020; McLeod, 2022). In this vulnerable state of navigating life-threatening illness and complex treatment options, many patients turn to cancer center advertising because it offers hope through promises of survival, innovative treatments, and exceptional care (Berry et al., 2020; Schwartz & Woloshin, 2016). Patient story advertising, a dominant form of cancer center advertising, aims to persuade potential patients of a healthcare brand’s quality by showcasing inspiring and emotional stories of their patients who have survived cancer. These carefully crafted stories present compelling patients as identifiable characters and use familiar plot structures to establish causal links between healthcare brand quality and positive patient experiences and outcomes. However, by spotlighting individual—and often extraordinary—success cases, patient story advertising risks intensifying patient vulnerability by oversimplifying the nuanced reality of healthcare and creating unrealistic expectations that what worked for one patient will work for others (Kreuter et al., 2007; Szabo, 2017). This risk of misleading vulnerable consumers through the use of vivid but less valid patient stories has led scholars to call for increased regulation of healthcare services advertising to protect consumers (Delmas, 2014; Schenker et al., 2014). This dissertation addresses the problem of how patient story advertising influences vulnerable healthcare consumers’ decision making in the high-stakes context of cancer care. This concern is magnified by

the scale of healthcare services advertising investment, with healthcare brands spending \$2.9 billion annually to influence consumer healthcare decisions (Schwartz & Woloshin, 2019).

Healthcare brands routinely feature patient stories on their websites, positioning these stories under headings like “Family-Centered Care” or “Patients First Strategy” to signal their commitment to patient-centered care (Martel et al., 2022). Current research reveals significant gaps in both the methodology and theoretical understanding of patient story advertising effects. Most studies have been descriptive content analyses documenting the prevalence and characteristics of these stories (Martel et al., 2022; McLeod, 2022, 2023; Patet, 2018). This research has shown that patient stories are carefully crafted through collaboration between healthcare brand communicators and patients to highlight exceptional experiences and outcomes. McLeod (2022) found patient stories showed positive framing at twice the rate of negative framing, while McLeod (2023) documented that 93% of cancer patient story endings featured “kicker quotes” emphasizing patient gratitude and resilience. Patet (2018) identified common messaging patterns across children’s hospital stories aligned with organizational objectives, and Martel et al. (2022) found stories predominantly featured white, middle-class patients sharing predictable positive outcomes and experiences.

While valuable at identifying the characteristics of patient stories, these studies cannot explain how specific story elements influence consumer responses. Limited experimental research has examined how patient story features work independently or together to shape consumer perceptions and decisions. This lack of experimental evidence is particularly problematic given that vulnerable cancer patients are making life-

altering decisions based in part on these persuasive stories. Without understanding the causal influence of specific story elements, healthcare brand communicators lack evidence-based guidelines for developing patient stories that balance emotional engagement with informed decision making. The strategic construction of patient stories raises particular concerns given that healthcare services are credence goods, meaning consumers struggle to evaluate quality even after consumption (Angerer et al., 2023; Schenker et al., 2014). This inherent difficulty in assessing healthcare quality makes experimental research crucial—it provides the only way to systematically determine how story elements influence consumer decision making. This need for experimental evidence is particularly urgent given that research shows approximately 90% of top-spending cancer centers use individual patient cases to highlight atypical outcomes while failing to disclose typical patient experiences (Berry et al., 2020). The prevalence of patient story advertising, combined with cancer patients' heightened vulnerability, creates an urgent need to better understand how cancer patient stories influence vulnerable consumers in this high-stakes decision context (Berry et al., 2020; Hlubocky et al., 2020).

Systematically deconstructing patient stories into their component elements, particularly content and character, is necessary to understand how each functions independently before examining how they operate in combination with plot structure. This deconstructive approach enables precise identification of causal mechanisms that would otherwise remain obscured in complete stories, providing stronger evidence for how patient stories influence healthcare decisions.

To address this research gap, this dissertation used narrative persuasion theory to predict how and when patient stories influence consumers. Research on narrative

persuasion—the process by which stories influence consumers—has firmly established that stories are more persuasive than non-story formats in changing beliefs (Braddock & Dillard, 2016), attitudes (Shen et al., 2015), and behaviors (Oschatz & Marker, 2020). This demonstrated effectiveness of stories to persuade further supports this dissertation’s examination of patient story advertising’s influence on potentially vulnerable healthcare consumers. However, while evidence for the persuasive power of stories over non-stories is established, scholars in the field are still working to answer the question of which story features matter most and why (Sun et al., 2024). Much of current narrative persuasion research examines how specific story features operate through narrative engagement such as transportation and identification and resistance to persuasion such as reduced counter-arguing (Sun et al., 2024). Narrative transportation is defined as a psychological state of deep immersion in a story that merges consumers’ cognitive focus, emotional engagement, and vivid mental imagery directed toward story events (Gerrig, 1993; Green & Brock, 2000). Identification describes the process in which consumers experience stories through the perspective of a character, temporarily merging their sense of self with that of the character (Cohen, 2001). Both are associated with consumers’ adoption of story-consistent beliefs, attitudes, and intentions. While recent meta-analyses have identified some story features that do not significantly affect persuasion—like story perspective (Chen & Bell, 2022) and character-audience similarity (Chen et al., 2024)—the field still needs more primary research to understand which features matter and why (Sun et al., 2024).

The purpose of this dissertation was to explore through two complementary experiments how intrinsic features of cancer patient stories—content (what information

they convey), characters (how patients are portrayed), and plot structure (how the story unfolds)—influence consumer perceptions and decision making. The first experiment isolated and tested the independent effects of content and character, systematically deconstructing patient stories to understand how each component functions in isolation. This analytical deconstruction established the foundation for the second experiment, which examined all three story features to understand how they work together to influence consumer responses when integrated in complete stories that resemble real-world patient stories. This progression from component analysis to integrated understanding provides a more comprehensive framework for both theory development and practical application.

To achieve this purpose, the dissertation developed a theoretical framework integrating existing models of narrative persuasion—the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) from marketing and the Narrative Immersion Model (NIM; Shaffer et al., 2018a) from medical decision making—with theories that explain how content, character, and plot persuade consumers. This integration acknowledged that different content types may activate distinct processing routes rather than operating through uniform mechanisms. Physical outcome content, psychological outcome content, and experience content may each engage different cognitive and emotional processes, with important implications for how character presence and plot structure function within each content domain. The NIM explains how different types of patient story content—about physical outcomes, psychological outcomes, and experiences—influence consumers (Shaffer & Zikmund-Fisher, 2013; Shaffer et al., 2018a). Exemplification theory explains how single cases such as a

compelling patient character that elicits emotional responses can exert disproportionate influence on beliefs and opinions (Kim et al., 2012; Zillmann 1999, 2006). However, character effects may not be universal across all content types, as abstract claims about psychological transformation may be processed differently than concrete evidence of physical outcomes when presented through identifiable patient characters. Narrativity theory explains how story plot elements such as cohesion, chronology, and causal links influence consumer engagement with stories (Schreiner et al., 2018).

The theoretical framework also distinguished between brand beliefs and affective forecasting as distinct outcomes of patient story exposure. While brand beliefs reflect consumer perceptions of the brand's performance, affective forecasting represents consumers' ability to accurately predict their own emotional reactions to future treatment experiences. This distinction has particular importance for understanding how different story components help consumers envision potential healthcare experiences versus forming judgments about healthcare brands. Finally, a number of moderators potentially influence the interaction of story features, mechanisms, and brand outcomes, highlighting the importance of examining antecedents of narrative engagement, individual differences, and healthcare involvement. The latter plays an especially big role in healthcare services advertising, where consumer responses can be heavily influenced by factors such as prior attitudes toward healthcare, healthcare access and provider status, insurance status, health status, and quality of life (Andersen, 1995; Meyer et al., 2024; Park et al., 2023; Straten et al., 2002).

Two complementary experiments provided empirical evidence of how specific story features influence consumer responses to patient story advertising. Study 1

deconstructed patient stories into their component content types to understand how content (physical outcome, psychological outcome, experience) and character presence function in isolation. This systematic deconstruction revealed content-conditional effects that challenged universal enhancement assumptions: different content types activated distinct processing routes, with character presence simultaneously enhancing narrative engagement while sometimes triggering skepticism. The Content-Moderated Dual-Process Model (CMDPM) developed through Study 1 positioned content type as the primary moderator determining which processing routes are activated and how story elements function when content types are presented in isolation. Study 2 examined how plot structure (high vs. low narrativity) and character presence influence narrative persuasion in complete patient stories that integrate all content types. This progression from isolated components to integrated stories addresses research that shows healthcare brands strategically combine multiple content types with identifiable characters and coherent plot structures to influence consumer healthcare decisions (McLeod, 2022, 2023; Willett, 2024).

The findings revealed more complex patterns than predicted by either the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) or the Narrative Immersion Model (NIM; Shaffer et al., 2018a) alone. Study 1 demonstrated that content type fundamentally moderates how story elements function, with physical outcome content showing unexpected versatility, psychological outcome content triggering critical evaluation, and experience content activating competing observational and simulation routes. Study 2 revealed that transportation and identification function as parallel rather than sequential processes with different downstream consequences—transportation

primarily reducing resistance and directly influencing persuasion outcomes, while identification primarily enhancing emotional engagement. Plot structure and character presence functioned as complementary rather than purely synergistic elements, with different configurations achieving similar outcomes through different pathways. Healthcare attitudes emerged as a critical moderator, with narrative effects stronger for individuals with less positive healthcare attitudes, suggesting that storytelling approaches may be particularly valuable for reaching skeptical consumers.

These findings collectively support the Patient Story Advertising Model (PSAM) developed through this research. This integrated theoretical framework that explains how different story features work through distinct but complementary mechanisms to influence consumer healthcare decisions. The PSAM positions content type as the fundamental moderator determining which processing routes are activated, while plot structure functions as an integrative mechanism that organizes these routes in complete patient stories. Rather than assuming all story elements must be maximized to enhance effectiveness, the model acknowledges that different story elements serve distinct functions, with effective patient stories strategically configured to achieve specific persuasion objectives while supporting informed decision making.

Having established the knowledge gaps in patient story advertising and narrative persuasion research, this dissertation makes two interconnected contributions. First, and most importantly, it advances patient story advertising research through systematic experimental testing of intrinsic story features—content type, character presence, and plot structure—to better understand how they work independently and together to influence persuasion outcomes. It is the first study to experimentally examine cancer patient stories

based on their description in the literature as carefully crafted brand stories that use specific content, character presentations, and plot structures to achieve marketing objectives (Martel et al., 2022; McLeod, 2022, 2023; Willett, 2024). This research employs structural equation modeling to examine the complex relationships between story features, consumer responses, psychological mechanisms, and brand outcomes—enabling simultaneous testing of direct and indirect effects that is missing from current research. The experimental approach and sophisticated analysis advances healthcare services advertising research by examining how and why stories persuade, and the results inform evidence-based patient story advertising guidelines to help protect consumer interests.

Second, the dissertation advances narrative persuasion theory by developing the Patient Story Advertising Model (PSAM) to explain how content type, character presence, and plot structure function independently and collectively to influence consumer healthcare decisions. This integrated theoretical framework challenges universal enhancement assumptions common in narrative persuasion research, demonstrates that transportation and identification function as distinct rather than sequential mechanisms, shows that story elements function as complementary rather than purely synergistic factors, and identifies healthcare attitudes as a critical contextual moderator. These theoretical advances transform understanding of narrative persuasion in healthcare contexts, with implications for both theory development and practical application in healthcare services advertising.

This dissertation proceeds as follows. Chapter 1 introduced the research problem and its significance. Chapter 2 provides a comprehensive literature review, including

background on healthcare services advertising and patient story advertising, and develops the theoretical framework that guided this research. Chapter 3 presents Study 1, which deconstructed patient stories to isolate and test the independent effects of content and character. Chapter 4 details Study 2, which examined how plot structure and character presence influence narrative persuasion in complete patient stories. Finally, Chapter 5 offers a general discussion that integrates findings from both studies, articulates theoretical and practical implications, addresses ethical considerations, acknowledges limitations, and suggests directions for future research.

Chapter 2: Literature Review

Background

Healthcare Services Advertising

Healthcare services are credence goods, meaning consumers struggle to evaluate quality even after consumption (Angerer et al., 2023; Schenker et al., 2014). Unlike typical products where quality becomes apparent through use, healthcare outcomes often remain difficult for patients to assess independently because of their limited medical knowledge and the complex nature of treatment and recovery (Angerer et al., 2023; Berry et al., 2020). This fundamental informational asymmetry creates significant challenges for consumer decision making and amplifies the influence of marketing messages (Schenker et al., 2014). First, patients often cannot independently determine their medical needs or evaluate treatment options, requiring them to rely heavily on provider expertise and communications to guide their choices (Angerer et al., 2023). This challenge is particularly acute in cancer care, where patients face complex treatment choices while dealing with life-threatening diagnoses (Berry et al., 2020; Hlubocky et al., 2020). The combination of complex medical decisions and emotional vulnerability creates specific risks when patients rely on marketing messages (Hlubocky et al., 2020; Schenker et al., 2014). Research shows patient decisions are significantly influenced by marketing portrayals that emphasize positive outcomes while omitting important information about costs, risks, and typical experiences (Larson et al., 2005; Park et al., 2021). When marketing emphasizes extraordinary outcomes without acknowledging typical experiences (Berry et al., 2020; Vater et al., 2014), patients may base decisions on incomplete or imbalanced information about likely results (McLeod, 2022; Park et al.,

2023). These risks are particularly acute for cancer patients, who must make complex treatment choices while dealing with emotional and physical vulnerability (Hlubocky et al., 2020). Second, even after receiving care, patients may lack the medical knowledge needed to assess whether treatments were necessary or performed correctly, making it difficult to learn from past healthcare experiences when making future decisions (Park et al., 2021). Third, healthcare pricing typically lacks transparency, with costs often unclear until after service delivery and largely shielded from patients through insurance, preventing effective cost-benefit analysis during decision making (Schenker et al., 2014). These characteristics create an environment where marketing messages can exert outsized influence on consumer healthcare decisions, as they offer seemingly concrete evidence of quality that consumers cannot obtain through other means (Berry et al., 2020; Hlubocky et al., 2020). Understanding how marketing influences consumer response becomes particularly critical given that vulnerable patients often rely on these messages when making life-altering healthcare decisions, especially in contexts like cancer care where treatment choices carry significant consequences (McLeod, 2023).

While the nature of healthcare services as credence goods creates ethical challenges for advertising, the current regulatory framework provides minimal consumer protection. Unlike pharmaceutical advertising, which faces strict Food and Drug Administration oversight requiring balanced presentation of risks and benefits, healthcare services advertising receives minimal federal scrutiny (Park et al., 2021; Schenker et al., 2014). For-profit healthcare brands must only meet basic Federal Trade Commission (FTC) standards against deceptive practices—the same rules governing general consumer goods. The FTC has only taken one major action against a healthcare brand, when the

agency ordered for-profit Cancer Treatment Centers of America to include prominent disclosures with nontypical patient testimonials (Schwartz & Woloshin, 2016). Non-profit healthcare brands face even less oversight than their for-profit counterparts, as they are exempt from FTC regulation and are overseen instead by state attorneys general, who rarely act on advertising issues (Rubenson & Kapp, 2017; Schwartz & Woloshin, 2016). This limited regulation allows healthcare brands significant latitude in their marketing approaches and message construction, with few requirements for disclosing risks, costs, or typical outcomes (McLeod, 2022).

This combination of minimal oversight and healthcare services' nature as credence goods creates an environment where marketing messages can significantly influence consumer decisions without facing regulatory scrutiny over their effects on consumer perceptions (Berry et al., 2020; Hlubocky et al., 2020). This regulatory context takes on added significance given that healthcare brands increasingly rely on sophisticated marketing approaches to shape consumer healthcare decisions, particularly in high-stakes contexts such as cancer care. This situation has led bioethics scholars to suggest several approaches for increased consumer protection. One that would address both for-profit and non-profit brands is to adapt mechanisms used for regulating prescription drug advertisements to healthcare services advertising (Schenker et al., 2014). Another suggestion is that non-profit brands such as academic health centers voluntarily follow FTC rules and submit advertisements to institutional review boards (bodies that oversee human subjects research) to assess whether they will help or hinder informed decision making (Schwartz & Woloshin, 2016). This latter approach is

premised on the idea that academic health centers hold a unique position in the healthcare system, and they increasingly invest in advertising to attract consumers.

Academic health centers are complex healthcare organizations that combine patient care, medical education, and research missions. They warrant particular attention as a research context because they hold positions of power and prestige through their complex missions combining patient care, medical education, and research, leading consumers to view them as especially trustworthy sources of information (Larson et al., 2005; Schwartz & Woloshin, 2016). This tension is heightened in the cancer care context because non-profit academic health centers make up most of the nation's National Cancer Institute-designated comprehensive cancer centers (Schwartz & Woloshin, 2016). Such centers have an outsized role in shaping cancer treatment delivery and hold special obligations to ensure their advertising does not harm vulnerable consumers (Vater et al., 2014). Advertising by academic health centers has increased dramatically as they seek new revenue in an increasingly competitive marketplace (Schwartz & Woloshin, 2019). Content analyses reveal concerning patterns in academic health center advertising, consistently showing they emphasize emotional appeals and positive outcomes while providing limited information about risks, costs, or typical patient experiences (Larson et al., 2005; Park et al., 2021; Vater et al., 2014). These strategic marketing choices take on added significance given academic health centers' enhanced obligations to public trust, their nonprofit status that limits regulatory oversight, and their role in setting industry standards for healthcare marketing (Rubenson & Kapp, 2017). Understanding how advertising influences consumer decision making becomes particularly critical in this

context, where vulnerable consumers rely on marketing messages from highly trusted healthcare brands when making life-altering treatment decisions.

The complex dynamics of healthcare services advertising manifest most prominently in patient story advertising, which has emerged as a dominant marketing approach for influencing consumer decisions, particularly among academic health centers (Park et al., 2021; Willett, 2024). While content analyses have documented concerning patterns in healthcare services advertising broadly, understanding the specific influence of patient stories takes on heightened importance given their compelling storytelling features and strategic deployment across owned and earned media channels (McLeod, 2022). This knowledge gap is especially critical for academic health centers, where their trusted position and limited oversight create unique tensions between marketing imperatives and public health obligations (Schwartz & Woloshin, 2016). Despite growing recognition of patient stories' prevalence and power in healthcare marketing, research has not systematically examined how patient stories influence vulnerable patients making life-altering treatment decisions (Berry et al., 2020).

Patient Story Advertising

In the context of healthcare services as credence goods, patient stories serve a unique function by providing narrative evidence of quality that consumers cannot obtain through direct experience (Berry et al., 2020). These carefully crafted stories go beyond traditional testimonials, illustrating comprehensive patient journeys through detailed accounts of medical treatment and personal transformation. Patient story advertising is defined as a form of narrative healthcare services advertising that features individual success cases and leverages common storytelling techniques to illustrate what it is like to

be a patient receiving care from a healthcare brand. The importance of patient story advertising stems from its unique ability to bridge the credence good gap by providing concrete evidence of quality through relatable patient experiences. Healthcare brands, particularly academic health centers, have embraced patient stories as central to their brand communication strategy, integrating them throughout their marketing channels to demonstrate quality and build trust with potential patients (Martel et al., 2022). The stories are created through collaboration between marketing staff and patients to highlight exceptional outcomes, though they often omit critical information about risks, alternatives, and costs (McLeod, 2022). This strategic use of patient stories reflects healthcare brands' understanding that stories can simultaneously demonstrate brand quality and create emotional resonance with consumers (Berry et al., 2020; Kemp et al., 2017).

Patient stories differ from traditional advertising formats through their distinct structural features and distribution channels. Content analyses reveal that patient stories predominantly employ a third-person journalistic format (81%) rather than first-person testimonial style, incorporating direct patient quotes as powerful rhetorical devices that lend authenticity and emotional impact to the story (McLeod, 2022, 2023). Healthcare brands routinely feature these stories on their owned media channels such as websites and social media, where their persuasive intent may be less obvious to consumers than in traditional paid advertising (Park et al., 2023). The stories' influence extends beyond brand channels, as healthcare brands routinely pitch them to news media as information subsidies, and these stories regularly appear as earned media with little to no modification by journalists (Willett, 2024).

Research reveals consistent patterns in how healthcare brands construct patient stories to influence consumer healthcare decisions. Content analyses show they typically employ familiar plot structures emphasizing triumph over adversity, with patients portrayed as active protagonists who overcome health challenges through the healthcare brand's intervention (McLeod, 2022). These stories blend emotional experience content with information about patient physical and psychological outcomes, creating stories that feel genuine while providing the concrete evidence of brand quality that consumers seek when evaluating healthcare choices (Willett, 2024). While practitioners express discomfort labeling patient stories as advertising, viewing them as more "organic" than paid media, they acknowledge using these stories to achieve strategic goals including patient acquisition, financial donations, and brand awareness (Willett, 2024). This tension between authenticity and persuasion heightens concerns about consumer vulnerability, particularly in high-stakes contexts like cancer care where patients must rely heavily on provider claims when evaluating treatment options.

Patient stories reveal consistent patterns in their use of content, character presentation, and plot structure that warrant systematic examination. Content analyses show patient stories disproportionately feature middle-class, white, middle-aged patients as central characters, raising questions about representation and identification (Martel et al., 2022). Analysis of plot structures and endings found that the vast majority conclude with direct quotes expressing themes of gratitude, resilience, or advice-giving, consistently framing healthcare experiences as positive regardless of condition type (McLeod, 2023). The gap between these carefully crafted story elements and typical healthcare experiences raises particular concerns given academic health centers'

enhanced obligations to public trust and their emphasis on evidence-based medicine. These strategic choices in story construction—from content selection to character portrayal to plot development—take on added significance when consumers rely on them to evaluate healthcare quality and make treatment decisions. This influence appears particularly critical in cancer care, where academic health centers routinely use patient stories to shape decisions of highly vulnerable consumers facing life-altering treatment choices.

The construction of cancer patient stories by academic health centers reveals particularly concerning patterns in the strategic use of story features. While these stories can provide hope and information to potential patients, content analyses show they selectively present positive physical outcomes and transformative experiences while omitting typical treatment realities (Berry et al., 2020; McLeod, 2022). This selective presentation takes on particular significance because cancer patients often overestimate potential treatment benefits, making them especially vulnerable to optimistic character portrayals and plot structures that emphasize triumph over adversity (Berry et al., 2020). Studies show nearly one-third of cancer patients experience long-term side effects, and recurrence rates vary dramatically by cancer type, yet these realities rarely appear in patient story content (McLeod, 2023). When combined with academic health centers' enhanced obligations to public trust and evidence-based medicine, this gap between carefully crafted stories and typical treatment experiences creates an urgent need to understand how specific story features influence consumer response.

Current research reveals critical gaps in understanding how cancer patient story features influence consumer decision making. While content analyses document what

these stories contain—from content types and character portrayals to plot structures—experimental research has not systematically examined how these features affect consumer response (McLeod, 2022; Rodgers & Stemmle, 2020; Shaffer et al., 2018a). The field particularly lacks evidence of how content type, character presentation, and plot structure work independently and together to influence consumer perceptions and decisions (Kemp et al., 2015, 2017). This limited understanding of causal relationships between story features and consumer response hampers efforts to develop evidence-based guidelines for ethical and effective patient story advertising that serves both organizational and public health interests (Berry et al., 2020; Rubenson & Kapp, 2017). Understanding these effects requires a theoretical framework drawn from narrative persuasion research that can explain how and why specific story features influence consumer response.

Narrative Persuasion

Meta-analyses have shown stories outperform non-story formats in changing beliefs (Braddock & Dillard, 2016), attitudes (Shen et al., 2015), and behavioral outcomes (Oschatz & Marker, 2020). With this evidence, the field has evolved to examine how specific story features achieve their effects through key psychological mechanisms: narrative transportation, identification, and reduced resistance to persuasion (Sun et al., 2024). Narrative transportation is defined as a psychological state of deep immersion in a story that merges consumers' cognitive focus, emotional engagement, and vivid mental imagery directed toward story events (Gerrig, 1993; Green & Brock, 2000), while identification describes the process in which consumers experience stories through the perspective of a character, temporarily merging their sense of self with that of the

character (Cohen, 2001). However, understanding how specific story features work through these mechanisms to influence consumer response remains a critical challenge, particularly in healthcare contexts where stories target vulnerable consumers making critical decisions.

Current theoretical frameworks provide partial but incomplete explanations for how stories influence consumers. In marketing, the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) explains how storyteller elements—identifiable characters, imaginable plots, and verisimilitude—work through transportation to influence consumer attitudes and behaviors. In medical decision making, the Narrative Immersion Model (NIM; Shaffer et al., 2018a) makes two contributions. First, it explains how different types of story content such as physical outcome content demonstrating medical results and experience content illustrating treatment realities influence consumer response (Shaffer & Zikmund-Fisher, 2013). Second, it identifies three distinct levels of narrative engagement: interest generated through story relevance and realism, involvement through character identification and perspective taking, and immersion through complete transportation into the story world. This hierarchical model explains how consumers progress through levels of engagement while processing different types of content. However, neither model alone fully explains how content, character, and plot elements work together to shape consumer response to patient stories.

Meta-analyses highlight these theoretical limitations. Research on specific story features has produced mixed or limited evidence that existing frameworks struggle to explain. For instance, studies of narrative perspective find only slight effects on identification and perceived susceptibility (Sun et al., 2024). Similarly, research on

character-recipient similarity shows no significant effects on risk perception, attitudes, or behavioral intentions (Sun et al., 2024). These findings suggest the need to examine how other story features influence consumer response, particularly through the lens of ad effectiveness outcomes including brand beliefs, attitudes, intentions, and trust.

Recent research has begun exploring how different theoretical perspectives might explain distinct aspects of narrative influence. Studies of health-related stories suggest that content types may work differently than character features (de Graaf et al., 2016), while plot elements may influence through yet other mechanisms (Dahlstrom et al., 2017). While ETIM explains basic transportation effects and NIM explains content influences, additional theoretical perspectives become necessary to fully understand how patient stories work. Exemplification theory explains how compelling patient characters can shape consumer beliefs and opinions (Bigsby et al., 2019; Zillmann, 1999, 2006), while narrativity theory reveals how plot elements like cohesion and causality influence story processing (Schreiner et al., 2018). Moreover, the concept of eudaimonic symbolism explains how story themes about life purpose and meaning, common in patient stories, can transfer onto featured brands, transforming them into symbols of significant life values (Hamby et al., 2023). This emerging evidence points toward the need for an integrated theoretical model that can explain how different patient story features work independently and together.

The healthcare context particularly highlights the need for theoretical integration. Patient stories combine carefully selected content about outcomes and experiences with specific character presentations and plot structures to influence treatment decisions. Existing research reveals that academic health center patient stories strategically combine

three key elements: carefully selected content about physical outcomes and transformative experiences, strategically presented patient characters as exemplars, and clear plot structures establishing causal links between treatment choices and positive outcomes (McLeod, 2022, 2023; Willett, 2024). Understanding these effects requires bringing together theories that can explain content effects (the NIM), character influence (exemplification theory), and plot structure (narrativity), while accounting for how these elements work through psychological mechanisms like transportation, identification, and eudaimonic symbolism to influence consumer response.

This theoretical integration becomes especially crucial given how these story features may interact differently in healthcare contexts. While individual theoretical perspectives offer tools for examining specific elements, current frameworks cannot fully explain how different types of content interact with character presentations and plot structures to shape consumer perceptions and decisions (Bigsby et al., 2019; Schreiner et al., 2018; Shaffer et al., 2018a). This limitation is particularly problematic given academic health centers' enhanced obligations to public trust when crafting stories that influence vulnerable consumers' life-altering treatment decisions (Berry et al., 2020; McLeod, 2023).

Meta-analyses show that while stories consistently outperform non-story formats, understanding exactly how they work requires examining the interaction of multiple theoretical mechanisms. Research has established that transportation reduces resistance to persuasion (Ratcliff & Sun, 2020), identification enables perspective taking (Cohen, 2001), and content types influence through different pathways including meaningful theme transfer to brands (Shaffer et al., 2018a; Hamby et al., 2023). However,

experimental studies have not tested these relationships in healthcare services advertising, where potential moderating factors include patient characteristics, cancer type, treatment complexity, and prior healthcare experiences (Berry et al., 2020; Hlubocky et al., 2020).

The current state of narrative persuasion research thus points toward the need for theoretical integration in understanding healthcare advertising effects. While individual models explain certain aspects of how stories work, understanding patient story advertising requires bringing together multiple theoretical perspectives to explain how carefully crafted stories influence vulnerable consumers' treatment decisions through brand beliefs, attitudes, and behavioral intentions. The following section develops a theoretical framework for patient story advertising that incorporates theories of how content, character, and plot work together through key psychological mechanisms to influence consumer responses.

Theoretical Framework

This integrated theoretical framework for patient story advertising proposes potential approaches to address gaps in understanding how patient story features might influence consumer response. The framework draws upon narrative persuasion theory to identify candidate factors that the studies will empirically test. While existing research documents the strategic use of content, character, and plot elements in cancer patient stories (McLeod, 2022, 2023; Willett, 2024), explaining how these features work requires integrating multiple theoretical perspectives to develop testable hypotheses about their effects. This conceptual framework attempts to move beyond descriptive understanding by drawing upon existing theories including the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) and the Narrative Immersion Model (NIM; Shaffer et al.,

2018a). The framework identifies potential relationships between story content, character, plot, and consumer responses that require empirical testing to determine their relevance in healthcare marketing contexts.

This exploratory theoretical framework draws from existing narrative persuasion theory in three potential directions that the empirical studies will evaluate. First, it draws on the concepts of storyteller and story receiver antecedents from the ETIM and proposes adding story content to the ETIM's storyteller antecedents of identifiable character, imaginable plot, and verisimilitude. Second, it incorporates the concept of levels of engagement from the NIM, suggesting narrative engagement may function as a progression of interest, involvement (identification), and immersion (transportation). Third, it explores eudaimonic symbolism (Hamby et al., 2023) as a potential mechanism to explain how meaning from story content might transfer to the healthcare brand.

The theoretical framework extends narrative persuasion theory by proposing moderators specific to the healthcare context that will be empirically tested. These proposed moderators include threat severity from the visceral congruency framework (Freling et al., 2020), as well as healthcare involvement factors such as prior attitudes toward healthcare (Meyer et al., 2024; Straten et al., 2002), healthcare access and provider status (Andersen, 1995), insurance status (Park et al., 2023), and both health status and quality of life measures (Andersen, 1995).

The following sections outline candidate elements for the framework that will be empirically tested. While organized in a structured progression for clarity, the actual relationships between these variables—and which variables prove most important—will be determined through the empirical studies rather than assumed in advance. The

framework begins with storyteller antecedents of narrative engagement, which include the independent variables for this research. It then examines the psychological mechanisms, specifically the narrative engagement concepts that serve as mediators. This is followed by an analysis of story receiver antecedents, which moderate narrative effects. Finally, it addresses ad effectiveness outcomes, which serve as dependent variables in this research. This structure follows the cause → mechanism → effect chain, shows how moderators influence these relationships, and illustrates how the variables interact in the model.

[Insert Figure 1 here]

The framework provides the theoretical foundation for two experimental studies examining how story features influence consumer response to patient story advertising. Study 1 investigates the effects of content type and character presence, while Study 2 examines the impact of plot structure and character presence. Together, these studies test key predictions about how storyteller elements shape consumer response through narrative engagement mechanisms, moderated by story receiver characteristics.

Storyteller Antecedents of Narrative Engagement

Drawing from multiple theoretical perspectives, this framework proposes several candidate storyteller factors that might influence narrative engagement: content types, identifiable character, imaginable plot, and verisimilitude. The studies will test which of these factors significantly influence consumer response and how they might interact. The first three serve as independent variables for this research. Because patient stories are true accounts of healthcare experiences, the research does not manipulate verisimilitude. However, acknowledging that consumers may perceive different levels of realism, the

research measures verisimilitude through perceived realism. The three independent variables are explained next.

Content Types. Content represents the primary vehicle through which healthcare brands attempt to shape consumer perceptions of their brands and treatments, raising concerns about how content choices might help or hinder informed decision making. The Narrative Immersion Model (NIM) provides a theoretical foundation for understanding content effects (Shaffer et al., 2018a). The NIM, which categorizes stories based on their purpose, content, and evaluative valence, serves as a framework to systematically evaluate and use stories in health communication contexts. The model defines stories as illustrative examples of personal experiences that provide insights into specific events or conditions (Shaffer et al., 2018a; Shaffer & Zikmund-Fisher, 2013). Unlike statistical information, stories emphasize experiential and emotional dimensions, making them more engaging and relatable (Green, 2006; Kreuter et al., 2007).

Content Type Effects. Existing research shows that cancer patient stories are designed to engage and persuade consumers, and the NIM suggests stories with these purposes include content about outcomes and experiences (Shaffer et al., 2018a). Outcome content focuses on the physical, psychological, or emotional consequences of health-related decisions, and it is associated with story-consistent attitudes and behaviors (Shaffer et al., 2018a). For example, Ubel et al. (2001) and Shaffer et al. (2017) found that outcome content influenced treatment preferences and discouraged harmful health behaviors by vividly illustrating consequences. Outcome content may be particularly influential when it includes counterfactual elements, such as preventable tragedies, which enhance emotional engagement and persuasion (Newman, 2003; Shaffer et al., 2018a).

By emphasizing the results of specific health choices, outcome stories could guide consumers toward decisions aligned with desired health outcomes.

Experience content focuses on what it feels like to undergo a particular treatment, offering consumers insights into the process and its emotional and physical impact. Research demonstrates that experience content reduces affective forecasting errors—situations where consumers mis-predict their future emotional reactions to medical events. For instance, experience content has been shown to improve decision quality and confidence by providing vivid and relatable accounts of health experiences, such as undergoing ostomy surgery or managing chronic conditions (Angott et al., 2013; Shaffer et al., 2013). Shaffer et al. (2016) further established that targeted experience stories, which address specific biases in emotional forecasting, significantly enhance consumers' ability to predict future discomfort accurately. This content also reduces anxiety and decision conflict, as shown in studies on colorectal cancer screening and end-of-life care (Dillard et al., 2010; Volandes et al., 2007).

Experience content may serve two distinct but related functions: shaping brand experience beliefs and improving affective forecasting accuracy. While brand experience beliefs reflect consumer perceptions of whether the brand's patients generally have good experiences, affective forecasting represents consumers' ability to accurately predict their own emotional reactions to future treatment experiences (Wilson & Gilbert, 2005). Research shows consumers often overestimate both the intensity and duration of their emotional responses to medical procedures, a phenomenon known as impact bias (Wilson & Gilbert, 2003). Experience content address these forecasting errors by providing concrete illustrations of emotional trajectories during treatment. Studies demonstrate that

experience content improves decision quality by helping consumers form more accurate predictions about future discomfort and emotional responses (Shaffer et al., 2016), while reducing healthcare avoidance stemming from exaggerated fears (Schlich-Bakker et al., 2007).

Research Application. Based on the NIM, this framework proposes three content types for empirical testing in patient story advertising: physical outcome content demonstrating concrete medical results, psychological outcome content conveying life meaning and personal growth, and experience content illustrating what treatment is really like. (Shaffer & Zikmund-Fisher, 2013). This adaptation aligns with both empirical evidence about patient story construction and healthcare brand practices. Research shows psychological outcomes such as improved quality of life and increased sense of purpose appear as frequently as physical outcomes in cancer patient stories (McLeod 2022, Willett, 2024). These content types also correspond to healthcare brand quality claims identified in advertising research, with physical and psychological outcomes providing evidence of treatment effectiveness and patient satisfaction, while experience content demonstrates patient-centered care (Park et al., 2023).

This dissertation makes three key theoretical assumptions about how these types of content influence consumer response. First, different content types may influence consumer decision making through distinct but potentially complementary pathways—physical outcomes shape treatment choice through perceived effectiveness, psychological outcomes through meaning and purpose, and experience content through enhanced understanding of what it is like to be a patient. Second, content can simultaneously activate multiple mechanisms, with psychological outcome content potentially engaging

both transportation and eudaimonic processing. Third, content effectiveness may vary based on moderating factors and the presence of other story elements such as character and plot.

Beyond their direct effects on consumers, different content types may fundamentally moderate how structural elements of stories—such as character and plot— influence consumer responses. Because content types engage distinct cognitive and emotional processing routes (Shaffer et al., 2018a), they may determine which mechanisms become activated when consumers encounter patient stories with various structural features. Physical outcome content, with its concrete and verifiable nature, may enhance the persuasive impact of plot-driven stories by making causal relationships between actions and consequences more salient and believable. Conversely, when combined with character-focused stories, physical outcome content might trigger more analytical evaluation as consumers assess the plausibility of reported outcomes in relation to the specific character attributes. Psychological outcome content, which often emphasizes personal transformation and meaning-making, may particularly amplify the effects of character-driven narratives by deepening identification and emotional connection with patient protagonists (Thomas & Grigsby, 2024). The subjective nature of psychological outcomes may also encourage more critical processing when presented within linear plot structures, as the internal validity of such transformations becomes more questionable without character development. Experience content likely strengthens perspective-taking mechanisms in character-focused stories by facilitating emotional simulation and enhanced empathy. When coupled with plot-driven stories, experience content might moderate effectiveness by bridging the gap between abstract plot

progression and concrete lived experience, making treatments more imaginable for consumers (Shaffer et al., 2016). These potential content-structure interactions align with calls for exploring how story content may condition the effects of structural elements (Thomas & Grigsby, 2024) and extend the NIM by recognizing that content not only has direct effects but shapes how other storytelling elements function in patient stories.

Based on these assumptions, this dissertation establishes two primary outcomes of content type: brand beliefs and affective forecasting. In this research, brand beliefs are operationalized as consumer beliefs about the typical patient experience (see Ad Effectiveness Outcomes section). Affective forecasting represents consumers' ability to accurately predict their own emotional reactions to future treatment experiences (Wilson & Gilbert, 2005). In healthcare contexts, accurate emotional predictions are crucial because anticipated emotions significantly influence treatment decisions (Ellis et al., 2018; Chapman & Coups, 2006). Patient stories improve forecasting accuracy by illustrating emotional trajectories that help consumers overcome focalism—excessive focus on single events without considering context—and better understand adaptation processes (Wilson & Gilbert, 2003). Research demonstrates that improved affective forecasting through narrative exposure enhances decision confidence (Hundal et al., 2024) by providing more accurate emotional expectations that inform both brand beliefs and behavioral intentions. Thus, the first hypotheses for Study 1:

H1: Content types will lead to different primary outcomes.

Content type effects on specific brand belief items:

a) Physical outcome content will have the strongest effect on brand effectiveness belief compared to psychological content, experience content, and control.

b) Psychological outcome content will have the strongest effect on brand meaning belief compared to physical content, experience content, and control.

c) Experience content will have the strongest effect on brand experience belief compared to physical content, psychological content, and control.

Content type effects on affective forecasting:

d) Experience content will have the strongest effect on affective forecasting compared to physical content and psychological content.

Content type effects on brand beliefs:

e) Physical content will have stronger effects on brand beliefs than control.

f) Psychological content will have stronger effects on brand beliefs than control.

g) Experience content will have stronger effects on brand beliefs than control.

Content type effects on ad effectiveness:

h) Physical content will have stronger effects on ad effectiveness than control.

i) Psychological content will have stronger effects on ad effectiveness than control.

j) Experience content will have stronger effects on ad effectiveness than control.

Identifiable Character. Research shows healthcare brands carefully craft character presentations in patient stories to maximize consumer emotional engagement, raising questions about how unique cases might influence vulnerable consumers (Martel et al., 2022; McLeod, 2023). Exemplification theory provides tools for understanding how individual patient characters influence consumer perceptions and decisions through identification and emotional engagement (Kim et al., 2012; Zillmann, 1999, 2006).

Character Effects. Exemplification theory explains how concrete examples, or exemplars, shape beliefs about broader phenomena through cognitive and emotional processes (Zillmann, 1999, 2006). The theory predicts that people form perceptions about populations or experiences through exposure to specific examples that make abstract concepts tangible and emotionally resonant. In healthcare contexts, patient exemplars serve as concrete instances that help consumers envision treatment experiences and outcomes. These identifiable characters achieve their effects through three key elements: representativeness of typical cases, accessibility in memory, and vividness of presentation. When applied to patient stories, exemplification theory suggests individual patient characters may disproportionately influence consumer perceptions by making healthcare experiences more concrete and emotionally engaging.

The Extended Transportation-Imagery Model (ETIM) provides complementary insights, proposing that identifiable characters significantly influence narrative engagement and persuasion by fostering empathy and immersion. Van Laer et al.'s (2014) meta-analysis supports the idea that stories with identifiable characters enhance narrative transportation, which occurs when consumers mentally enter the world of the story. This transportation effect increases when consumers can clearly recognize and

relate to the characters, leading them to vicariously experience the characters' beliefs and emotions (Slater & Rouner, 2002; van Laer et al., 2014). ETIM further suggests that identifiable characters enhance narrative persuasion by reducing critical scrutiny and increasing story-consistent beliefs and attitudes. When consumers empathize with a character, they become less likely to counter-argue the message presented in the narrative, aligning with research showing that narrative transportation fosters story-consistent affective and cognitive responses that shape attitudes and behavioral intentions (Green & Brock, 2000; Escalas, 2004a; van Laer et al., 2014).

Meta-analytic evidence supports examining exemplar effects in patient stories. Studies show character-recipient similarity significantly influences identification ($d = 0.14$), though effects on transportation ($d = 0.13$) and resistance reduction ($d = -0.10$) are more limited (Chen et al., 2023). Research demonstrates exemplars enhance narrative engagement through increased emotional response ($r = 0.34$) and perceived similarity ($r = 0.29$) (Krämer & Peter, 2020; Kim et al., 2012). These effects appear particularly strong when exemplars are presented as deserving characters that elicit compassion and protective responses (Skovsgaard & Hopmann, 2020). ETIM research similarly notes that identifiable characters can lead to both positive and negative persuasion outcomes, as shown in studies on media influences on smoking behavior and health interventions (Dal Cin et al., 2007; Slater et al., 2003).

Patient exemplars particularly evoke emotions associated with narrative engagement and healthcare—including feeling hopeful, inspired, moved, touched, and uplifted. These emotions align with transportation theory's emphasis on emotional response to stories (Green, 2006) while capturing the positive, transformative themes

common in patient stories (Berry et al., 2020; Kemp et al., 2017; McLeod, 2023).

Healthcare brands strategically craft patient stories to create emotional resonance while demonstrating quality, making these emotional responses key indicators of how effectively stories influence consumer decision making. Understanding these emotional effects requires a theoretical framework that explains how identifiable characters shape consumer response.

Research Application. Drawing on exemplification theory and ETIM, the framework conceptualizes patient story character as identifiable patients who represent, and stand in for, the broader population of the healthcare brand. This aligns with health communication research that has defined exemplars as delivery vehicles for conveying health-related information, in this case (Kim et al., 2012). In this case, the health-related information is outcome and experience content (Shaffer et al., 2018a). The framework makes three key theoretical assumptions about identifiable character effects in patient story advertising. First, identifiable patient characters achieve their effects primarily through identification processes that enable consumers to experience patient stories from the patient's perspective. Second, identifiable patient characters enhance transportation by making stories more concrete and emotionally engaging while simultaneously reducing resistance through identification. Third, character effectiveness varies based on both presentation choices and individual differences in empathy and perspective-taking ability.

Based on these assumptions, the next hypotheses for Study 1 and Study 2:

H2/H7: Character presence (vs absence) will lead to:

- a) Increased transportation.
- b) Increased identification.

- c) Increased perceived similarity.
- d) Increased emotional responses.

In addition, character (vs control):

- e) Character presence will lead to increased ad effectiveness.
- f) Character absence will lead to increased ad effectiveness.

Imaginable Plot. Research shows healthcare brands routinely craft patient stories with familiar plot structures to achieve organizational objectives, and this is particularly concerning for patient stories that are designed to establish causal links between treatment choices and positive outcomes (McLeod, 2022, 2023; Willett, 2024). Narrativity theory provides tools for understanding how plot structure influences consumer perceptions and decisions through processing fluency and emotional engagement (Schreiner et al., 2018).

The extended transportation-imagery model (ETIM) further explains how an imaginable plot—defined as a plot that the story receiver can mentally simulate—enhances narrative engagement by increasing the likelihood of narrative transportation (van Laer et al., 2014). According to van Laer et al. (2014), an imaginable plot is a key storyteller-controlled antecedent that activates the story receiver's mental imagery, which is essential for transporting the consumer into the story world. When the story plot is imaginable, it becomes easier for consumers to envision the events as if they are experiencing them in real life, which increases empathy and immersion—core mechanisms of narrative transportation (van Laer et al., 2014). Their meta-analysis provides empirical support for this prediction, showing that an imaginable plot has a statistically significant and positive effect on narrative transportation ($r = .29$, $p < .001$),

reinforcing that the more imaginable the plot, the more likely the consumer is to become transported into the narrative world (van Laer et al., 2014).

Narrativity theory explains how the arrangement and connection of story events influences narrative processing and persuasion (Schreiner et al., 2018). The theory predicts that stories vary in their degree of narrativity—the extent to which they present events in ways that facilitate comprehension and engagement. Three key elements shape story processing. First, temporal sequence refers to the chronological ordering of events that helps readers understand how healthcare experiences unfold. Second, causal connections establish clear relationships between events, particularly how healthcare brand interventions lead to specific outcomes. Third, plot coherence creates a unified story structure that maintains engagement while supporting meaning-making (Green & Jenkins, 2014). These elements determine how effectively stories draw readers in and help them process complex healthcare information.

Plot Effects. Evidence supports examining narrativity effects in patient stories. High narrativity has been shown to increase transportation and enhance persuasiveness of strong arguments, particularly among individuals deeply transported into stories (Schreiner et al., 2018). Research demonstrates that emotional flow, a hallmark of effective stories, guides message selection, sustains engagement, and promotes attitude change (Nabi & Green, 2015). Studies suggest high narrativity stories with strong arguments are particularly persuasive when recipients experience deep transportation (Schreiner et al., 2018). These effects appear strengthened by regulatory fit between reader state and strategic story goals (Vaughn et al., 2009). This aligns with van Laer et al.'s (2014) findings that increased narrative transportation is associated with stronger

emotional responses, more story-consistent beliefs, and greater persuasion, making an imaginable plot a critical storytelling element for influencing consumer perceptions and behaviors.

Research Application. Based on narrativity theory, the framework conceptualizes patient story plot as the logical, cohesive structure that establishes the causal connection between the healthcare brand and the patient's successful outcomes and experiences. The framework makes three key assumptions about narrativity effects in cancer patient story advertising. First, high narrativity achieves its effects primarily through enhanced processing fluency that enables consumers to more easily envision healthcare experiences. Second, coherent plot structures simultaneously enhance transportation through temporal flow while reducing resistance through clear causal connections. Third, narrativity effectiveness varies based on both individual processing ability and the presence of other story elements like identifiable characters.

Based on these assumptions, the first hypotheses for Study 2:

H6: High (vs. low) narrativity will lead to:

- a) Increased transportation.
- b) Reduced counter-arguing.
- c) Increased emotional responses.
- d) Increased perceived message credibility.

In addition, plot structure (vs control):

- e) High narrativity will lead to increased ad effectiveness.
- f) Low narrativity will lead to increased ad effectiveness.

Verisimilitude. Verisimilitude represents the degree to which story elements align with consumer expectations of real-world experiences, determining whether consumers accept story content as authentic and credible (Green & Brock, 2000). While the other storyteller antecedents are manipulated in this research, verisimilitude serves as a measured variable that may moderate their effects. Research shows perceived realism plays a crucial role in narrative persuasion by enabling consumers to accept story events as plausible while maintaining emotional engagement.

Verisimilitude Effects. Studies demonstrate that higher perceived realism enhances transportation ($r = .32$), strengthens character identification ($r = .28$), and reduces counter-arguing ($r = -.25$) (van Laer et al., 2014). These effects appear particularly important in healthcare contexts, where perceived authenticity of patient experiences significantly influences message acceptance and behavioral intentions (Shaffer et al., 2018a). Meta-analyses suggest verisimilitude moderates other storyteller antecedents—amplifying the influence of outcome content by making medical results feel more attainable (Shaffer et al., 2013), enhancing character effects by making patients feel more authentic (Kim et al., 2012), and strengthening plot effects by making causal sequences feel more plausible (Schreiner et al., 2018).

Research Application. This theoretical framework conceptualizes verisimilitude as a measured moderator that may influence the effectiveness of manipulated story features. While formal moderation hypotheses are not proposed to maintain theoretical parsimony, measured verisimilitude enables examination of how perceived realism affects story processing and persuasion outcomes. This approach aligns with narrative

persuasion research showing interaction effects are particularly strong when stories achieve both high transportation and high perceived realism (Green & Brock, 2000).

Interaction and Alignment of Storyteller Antecedents. While the preceding sections examine how individual storyteller antecedents of content, character, plot, and verisimilitude may influence narrative effects, it is equally important to consider how these elements may interact. The literature presents evolving perspectives on these relationships. The Extended Transportation-Imagery Model (ETIM) positions storyteller antecedents as independent and additive factors, where each element (identifiable characters, imaginable plot, verisimilitude) independently contributes to transportation effects (van Laer et al., 2014). Under this view, optimizing each element would incrementally enhance overall narrative effectiveness.

However, more nuanced perspectives suggest these relationships may be complementary rather than purely additive or synergistic. While the ETIM suggests storyteller antecedents work together additively to enhance transportation, resource allocation theories suggest consumers have limited processing capacity that must be distributed across story elements (Lang, 2017). This constraint may create complementary rather than purely synergistic relationships, where strength in one element compensates for weakness in another. Different configurations of story elements may achieve similar outcomes through distinct processing pathways, challenging universal enhancement assumptions.

For instance, a story with highly relatable characters might achieve similar transportation effects as one with a less developed character but stronger plot structure. Content with vivid physical outcomes might compensate for moderate character

development, while psychologically focused content might particularly benefit from stronger character elements. These complementary relationships align with Shaffer et al.'s (2018a) Narrative Immersion Model (NIM), which describes immersion as a hierarchical process where various antecedents—such as message realism, character-audience similarity, and plot coherence—each facilitate movement along the immersion continuum in unique ways.

This understanding of storyteller antecedents as potentially complementary rather than purely synergistic suggests that effective stories may employ different configurations of elements to achieve similar outcomes through distinct pathways. Because of this, narrative effectiveness requires purposeful design choices where content, character, and plot are strategically aligned with intended outcomes (Shaffer et al., 2018a; Kreuter et al., 2007; Green, 2006; van Laer et al., 2014).

The NIM (Shaffer et al., 2018a) explicitly argues that different story content types serve distinct communication functions—for instance, outcome content excels at persuasion, while experience content enhances affective forecasting. This functional specificity extends to character attributes (e.g., similarity, likability) and plot structures (e.g., emotional cadence, humor), which must be selected to match communication goals rather than maximized indiscriminately. This concept of strategic alignment moves beyond viewing storyteller antecedents as universally beneficial elements to be maximized, instead recognizing them as strategic tools to be selectively emphasized based on specific communication contexts and objectives.

Psychological Mechanisms

Understanding how patient stories influence consumer response requires examining the distinct but interrelated psychological mechanisms through which stories achieve their effects. This theoretical framework proposes that story features influence consumers through three primary mechanisms—transportation, identification, and eudaimonic symbolism—that have distinct effects on consumer responses to patient stories. Each mechanism contributes uniquely to persuasion outcomes while potentially enhancing the effectiveness of other pathways.

Narrative Engagement. Narrative engagement has been conceptualized in various ways across the literature. The Narrative Immersion Model (NIM) suggests that narrative processing occurs through progressive levels of engagement—interest, involvement, and immersion—with identification positioned as an aspect of involvement and transportation as the deepest stage of immersion (Shaffer et al., 2018a). This hierarchical model conceptualizes story processing as a sequential progression where identification potentially leads to transportation, enhancing narrative effects.

However, alternative theoretical perspectives suggest transportation and identification may serve distinct persuasive functions operating in parallel rather than sequentially. Several researchers have demonstrated that transportation and identification are conceptually distinct constructs that can be independently manipulated and measured (Tal-Or & Cohen, 2010; Green, 2021; Murphy et al., 2013). While often correlated, they do not necessarily co-occur—consumers may be transported into a story without strongly identifying with a character, or they may identify with a character without experiencing full immersion in the story world (Cohen & Klimmt, 2021; Green, 2006).

The key distinction lies in their focus: transportation concerns immersion in the overall story, while identification is a character-specific construct (Tal-Or & Cohen, 2010; Green, 2021). This distinction has important implications. Transportation may primarily reduce resistance by absorbing cognitive resources that would otherwise be used for counter-arguing (Green & Brock, 2000; van Laer et al., 2014), while identification may primarily enhance emotional engagement through perspective-taking processes that create empathic responses (Cohen, 2001; Cohen & Klimmt, 2021). These specialized functions suggest transportation and identification may operate as parallel rather than exclusively sequential processes in narrative persuasion, each contributing uniquely to persuasive outcomes.

Transportation. Transportation, defined as deep psychological immersion in the story world, may represent a powerful mechanism through which patient stories influence consumer response. Narrative transportation is characterized by a mental state where consumers' cognitive focus, emotional engagement, and vivid mental imagery merge to create a sense of being absorbed into the story events (Gerrig, 1993; Green & Brock, 2000). During transportation, consumers experience a temporary detachment from reality, feeling as if they are part of the story world rather than mere observers (Green et al., 2019; van Laer et al., 2014). This immersive state enables consumers to experience story events vicariously while naturally reducing resistance to persuasive messages.

Transportation's persuasive influence operates through several distinct mechanisms. First, it reduces counterarguing by consuming cognitive resources that would otherwise be used to scrutinize message claims (Green, 2006, 2021). When transported, consumers are less motivated and less able to generate counterarguments,

even when the persuasive intent is somewhat evident (Green, 2021; van Laer et al., 2014). Meta-analytic evidence confirms this effect, showing a negative correlation between transportation and critical thoughts ($r = -0.20$) (van Laer et al., 2014).

Second, transportation enhances emotional engagement with stories, allowing consumers to experience a range of emotions aligned with story content. These emotional responses are particularly powerful in health contexts where emotions such as hope, fear, and empathy serve as motivators for behavior change (Green, 2006; Thomas & Grigsby, 2024). The strong emotional resonance of transportation is evidenced by its substantial correlation with affective responses ($r = 0.57$) (van Laer et al., 2014).

Third, transportation facilitates mental simulation of health behaviors, helping consumers imagine themselves performing actions modeled in the story. This process can increase self-efficacy and response efficacy, particularly important in health contexts where consumers need to visualize themselves successfully engaging in prevention behaviors (Green, 2006, 2021). The vivid mental imagery component of transportation serves as a mnemonic cue, reinforcing associated beliefs and attitudes (Green, 2021).

Finally, transportation enhances message acceptance, leading consumers to adopt story-consistent beliefs, attitudes, and intentions. Meta-analyses demonstrate transportation's substantial impact on attitudes ($r = 0.44$), behavioral intentions ($r = 0.31$), and beliefs ($r = 0.26$) (van Laer et al., 2014). Importantly, these persuasive effects often strengthen over time, demonstrating transportation's enduring influence (van Laer et al., 2014; Green, 2006).

In health communication specifically, transportation addresses both cognitive and emotional barriers to behavior change by engaging consumers in a non-threatening

manner that can overcome denial, fear, and perceived invulnerability (Green, 2006; Murphy et al., 2013). For patient stories, transportation may enable consumers to process potentially fearful or complex medical information through the lens of narrative experience rather than abstract risk statistics, increasing knowledge retention and attitude formation (Murphy et al., 2013; Shaffer et al., 2018a).

Identification. Identification, defined as a mechanism through which consumers connect with and adopt the perspective of story characters, may represent a distinct pathway that influences how consumers process patient stories. Identification enables consumers to experience stories through the perspective of a character, temporarily merging their sense of self with that of the character (Cohen, 2001; Cohen & Klimmt, 2021). This process involves adopting the character's goals, emotions, and worldview, leading consumers to interpret story events as if they were happening to them.

Identification operates through several specialized mechanisms that enhance narrative persuasion. First, identification facilitates empathy and perspective-taking, allowing consumers to vicariously experience emotions and situations beyond their own lives (Cohen, 2017; Shaffer et al., 2018a). This empathetic connection is particularly valuable in health contexts where understanding patient experiences can reduce stigma and bridge psychological distance between consumers and health conditions (Johnson et al., 2013; Kaufman & Libby, 2012).

Second, identification enhances affective forecasting accuracy by enabling consumers to vicariously experience the emotional flow—shifts in emotional intensity over time—described in patient stories (Nabi & Green, 2015). Through character identification, consumers better understand how others adapt emotionally to medical

procedures, helping overcome immune neglect—the tendency to underestimate adaptation capacity (Wilson & Gilbert, 2003). Research shows this combination of identification and emotional flow particularly influences behavioral intentions for health screenings by aligning anticipated emotions with actual patient experiences (Dillard et al., 2010).

Third, identification promotes social learning and behavioral modeling, particularly when consumers identify with characters whose behaviors are rewarded or lead to positive outcomes (Bandura, 2001; Cohen, 2017). This mechanism allows for the internalization of attitudes, values, and behaviors modeled by characters, which is especially important in health contexts where observing successful coping or treatment adherence can motivate similar behaviors (Cohen & Klimmt, 2021; Tal-Or & Cohen, 2010).

Meta-analyses demonstrate identification's unique contribution to narrative persuasion, distinct from transportation effects. Research shows that character-recipient similarity significantly influences identification ($d = 0.14$) but has more limited direct effects on transportation ($d = 0.13$) or resistance reduction ($d = -0.10$) (Chen et al., 2023). Importantly, the valence of character portrayal influences identification strength, with consumers identifying more strongly with positively portrayed characters than negatively portrayed ones (Tal-Or & Cohen, 2010).

In health communication, identification with characters who model positive health behaviors has been linked to increased behavioral intentions, attitude change, and knowledge acquisition (Murphy et al., 2013; Sun et al., 2024). However, the relationship between identification and outcomes depends on the character's attributes—identification

with uninformed or negatively portrayed characters can sometimes undermine health knowledge or attitudes (Murphy et al., 2013). This highlights the importance of designing patient stories with characters who not only evoke identification but also model appropriate health behaviors and attitudes.

Eudaimonic Symbolism. Eudaimonic symbolism is proposed as a potential mechanism through which patient stories might transform abstract healthcare services into meaningful symbols of personal transformation. Healthcare decisions uniquely engage eudaimonic processing because life-threatening illness forces patients to confront questions of meaning and purpose. While products can symbolize meaning through physical possession, healthcare services create meaning through transformative personal experiences (Hamby et al., 2023). Cancer treatment particularly exemplifies this distinction, as services become symbolic not through ownership but through life-altering medical journeys. This research advances theory by showing how psychological outcome content in patient stories transforms abstract healthcare services into concrete symbols of hope, resilience, and personal transformation.

The mechanism of eudaimonic symbolism involves associative cognitive processes through which meaningful themes in stories are symbolically transferred to the object featured in the story, turning it into a representation of those values. This process enhances the product's perceived value, attitudes toward it, and purchase intentions (Hamby et al., 2023). Through this pathway, psychological outcome content in patient stories may transform abstract healthcare services into concrete symbols of hope, resilience, and personal transformation. Studies demonstrate this pathway enhances attitudes and intentions by connecting brands with profound themes about life purpose

and personal growth (Hamby et al., 2023). These findings inform this research by suggesting psychological outcome content may particularly activate symbolic processing through associative transfer of meaningful themes.

Based on these theoretical mechanisms, the next hypotheses for Study 1 and Study 2:

H3/H8: The effect of character presence (vs absence) on ad effectiveness will be mediated by:

- a) Transportation.
- b) Identification.

H4: The effect of psychological outcome content on attitude toward the brand will be mediated by eudaimonic symbolism.

Transportation and identification (narrative engagement) not only enhance engagement but also mitigate resistance to persuasive messages. Thus, these hypotheses for Study 2:

H12: Narrative engagement mechanisms will reduce resistance processes.

- a) Transportation will decrease counter-arguing.
- b) Transportation will decrease persuasion knowledge activation.
- c) Identification will decrease counter-arguing.
- d) Identification will decrease persuasion knowledge activation.
- e) Identification will have a stronger negative effect on counter-arguing than transportation.
- f) Identification will have a stronger negative effect on persuasion knowledge activation than transportation.

- g) High narrativity will reduce counter-arguing more than low narrativity.
- h) High narrativity will reduce persuasion knowledge activation more than low narrativity.
- i) The combination of high narrativity and character presence will reduce counter-arguing more than the combination of low narrativity and character presence.

H13: Narrative engagement will positively affect emotional and persuasive outcomes:

- a) Transportation will increase emotional responses.
- b) Identification will increase emotional responses.
- c) Transportation will increase ad effectiveness.
- d) Identification will increase ad effectiveness.
- e) Identification will have a stronger positive effect on ad effectiveness than transportation.

Story Receiver Antecedents of Narrative Engagement

The framework proposes that story receiver characteristics may play a moderating role in narrative processing, though the significance and nature of these moderating effects requires empirical testing. Individual differences in attention, familiarity with healthcare contexts, transportability (tendency to become immersed in stories), trait empathy, demographics, threat severity, and healthcare involvement all influence how consumers engage with patient stories. Healthcare involvement encompasses multiple factors identified by healthcare services researchers, including prior attitudes, access,

provider status, insurance status, health status, and quality of life (Andersen, 1995; Meyer et al., 2024; Park et al., 2023; Straten et al., 2002).

Moderating Processes in Healthcare Context. Moderating factors are particularly critical in healthcare contexts, where individual differences in processing ability, healthcare involvement, and threat severity may significantly affect how consumers engage with patient stories. The Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) identifies story receiver characteristics that influence transportation effectiveness, and the healthcare advertising context introduces additional boundary conditions through the visceral congruity framework (van Laer et al., 2014; Freling et al., 2020). Understanding these moderating factors is crucial for explaining why identical story features might achieve different effects across consumers and contexts.

Theoretical perspectives on resistance suggest stories may be particularly effective for skeptical consumers because storytelling approaches naturally bypass resistance processes that more direct persuasion attempts trigger (Moyer-Gusé, 2008). In healthcare contexts, this suggests narrative effects may be stronger for individuals with less positive healthcare attitudes, as stories provide pathways to engagement that circumvent initial skepticism toward healthcare institutions. When individuals harbor negative attitudes toward healthcare organizations, they typically exhibit heightened psychological reactance and counterarguing against persuasive healthcare messages (Moyer-Gusé, 2008; Straten et al., 2002). Stories may mitigate these resistance processes through transportation and character identification, which temporarily displace critical

evaluation and reduce the perception of persuasive intent (Moyer-Gusé, 2008; Meyer et al., 2024).

This dissertation's theoretical framework integrates ETIM's story receiver antecedents (van Laer et al., 2014) with the visceral congruency framework (Freling et al., 2020) to explain moderation. Moderators are conceptualized as factors that systematically strengthen or weaken mechanism effectiveness by influencing consumers' ability or motivation to engage with patient stories. The visceral congruency framework suggests healthcare contexts amplify certain moderator effects by increasing both personal relevance and threat severity (Freling et al., 2020).

Meta-analytic evidence reveals consistent patterns in how moderators influence psychological mechanism effectiveness. For transportation, story receiver characteristics show reliable effects across contexts. Transportability ($r = 0.28$) and attention capacity ($r = 0.29$) consistently predict transportation intensity, while familiarity with story topics ($r = 0.21$) enhances processing fluency (van Laer et al., 2014). Empathy studies demonstrate trait perspective taking moderates both transportation ($d = 0.24$) and identification ($d = 0.19$), suggesting some moderators influence multiple pathways simultaneously (Chen et al., 2023). Research on eudaimonic processing reveals that need for meaning particularly affect how consumers engage with profound story themes (Hamby et al., 2023).

Healthcare-specific evidence suggests unique boundary conditions for processing in patient story advertising. Studies show healthcare involvement—including insurance status, healthcare attitudes, and access—significantly influences how consumers process healthcare advertising (Park et al., 2023). The moderating role of healthcare attitudes appears particularly salient, as individuals with less positive attitudes toward healthcare

institutions may experience stronger narrative effects because of the capacity of stories to overcome resistance mechanisms that typically undermine persuasion among skeptical consumers (Moyer-Gusé, 2008; Meyer et al., 2024). The visceral nature of healthcare decisions amplifies moderator effects, as evidenced by the significant negative influence of threat severity on the persuasiveness of statistical evidence ($g = -0.12$, $p < .01$) (Freling et al., 2020). This finding suggests that in high-threat situations, consumers are more inclined to rely on anecdotal information over statistical data.

Research Application. This theoretical framework conceptualizes three distinct moderating processes particularly relevant for patient story advertising. First, story receiver characteristics identified in ETIM may systematically influence mechanism effectiveness through individual differences in processing capacity. Transportability determines consumers' baseline ability to become immersed in stories, while trait empathy may affect both transportation and identification pathways. Healthcare involvement and prior experiences may shape how effectively consumers can process medical content, potentially affecting all mechanism pathways. These individual differences may interact with story features to determine overall processing effectiveness.

Second, healthcare context and threat severity identified through the visceral congruency framework may moderate mechanism effectiveness by affecting both motivation and ability to process patient stories (Freling et al., 2020). Specifically, threat severity increases attention to healthcare messages. Prior healthcare experiences create knowledge structures that facilitate processing of medical content while potentially affecting emotional responses to patient stories. Attitudes toward healthcare organizations represent a critical moderator within this context, with evidence suggesting storytelling

approaches may disproportionately benefit persuasion among consumers with negative healthcare attitudes by circumventing resistance processes that typically undermine more direct persuasion attempts (Moyer-Gusé, 2008; Meyer et al., 2024; Straten et al., 2002).

Third, situational factors may affect mechanism effectiveness through their influence on processing capacity and motivation. Cognitive load from complex healthcare decisions may limit transportation ability, while environmental distractions could disrupt sequential processing pathways. These effects take on particular significance in healthcare contexts where consumers often encounter patient stories while dealing with emotional stress and decision complexity.

Based on these assumptions, the next hypotheses for Study 2:

H10: Individual differences will moderate the positive effects of high narrativity and/or character presence on narrative engagement:

- a) Familiarity -> high narrativity and/or character presence -> transportation.
- b) Attention -> high narrativity and/or character presence -> transportation.
- c) Transportability -> high narrativity and/or character presence -> transportation.
- d) Trait empathy -> high narrativity and/or character presence -> transportation.
- e) Familiarity -> high narrativity and/or character presence -> identification.
- f) Attention -> high narrativity and/or character presence -> identification.

g) Transportability -> high narrativity and/or character presence -> identification.

h) Trait empathy -> high narrativity and/or character presence -> identification.

H11: Threat severity will increase the positive effects of high narrativity and character presence on transportation and identification:

- a) Threat severity \times High narrativity → transportation.
- b) Threat severity \times Character presence → transportation.
- c) Threat severity \times High narrativity → identification.
- d) Threat severity \times Character presence → identification.

H14: Healthcare involvement factors will moderate the relationship between narrative engagement and ad effectiveness:

Transportation and healthcare factors:

- a) The relationship between transportation and ad effectiveness will be moderated by attitudes toward healthcare.
- b) The relationship between transportation and ad effectiveness will be moderated by healthcare access.
- c) The relationship between transportation and ad effectiveness will be moderated by provider status.
- d) The relationship between transportation and ad effectiveness will be moderated by insurance status.
- e) The relationship between transportation and ad effectiveness will be moderated by health status.

f) The relationship between transportation and ad effectiveness will be moderated by quality of life.

Identification and healthcare factors:

g) The relationship between identification and ad effectiveness will be moderated by attitudes toward healthcare.

h) The relationship between identification and ad effectiveness will be moderated by healthcare access.

i) The relationship between identification and ad effectiveness will be moderated by provider status.

j) The relationship between identification and ad effectiveness will be moderated by insurance status.

k) The relationship between identification and ad effectiveness will be moderated by health status.

l) The relationship between identification and ad effectiveness will be moderated by quality of life.

Ad effectiveness Outcomes

Patient story ad effectiveness depends on shaping consumer beliefs, attitudes, and behavioral intentions through narrative persuasion mechanisms. While traditional advertising measures capture basic response variables, the healthcare context requires examining how stories influence both rational evaluations and emotional connections with healthcare brands. For measurement purposes, the framework proposes examining ad effectiveness as a potential second-order construct comprising brand beliefs, attitude toward the brand, behavioral intentions, and brand trust. This structure aligns with

healthcare advertising research showing that story-based messages achieve their effects by first establishing brand beliefs, then fostering positive attitudes, and ultimately motivating behavioral intentions (Berry et al., 2020; Schenker et al., 2014). In addition, trust is key in the patient story advertising context because healthcare brands use patient stories to build trust with potential patients (Martel et al., 2022).

Brand Beliefs. Brand beliefs represent consumers' fundamental assessments of healthcare brand capabilities across three critical dimensions—effectiveness, meaning, and experience. These beliefs are particularly important in healthcare contexts where consumers often lack direct experience to evaluate technical quality and must rely on narrative evidence to form judgments (Shaffer et al., 2018a). Patient stories shape these beliefs by providing vivid illustrations of treatment outcomes and patient experiences while naturally bypassing analytical resistance that might otherwise limit belief formation and change (Green & Brock, 2000). Meta-analytic evidence demonstrates a distinct advantage of stories in belief formation and change compared to non-story formats ($d = 0.63$, 95% CI [0.52, 0.74]) (Braddock & Dillard, 2016). This effect appears particularly strong for healthcare beliefs, where stories show enhanced persuasion compared to statistical evidence ($d = 0.55$, 95% CI [0.47, 0.63]) (Oschatz & Marker, 2020). Research suggests this advantage stems from the ability of stories to make abstract healthcare concepts concrete while reducing counter-arguing through transportation (Green & Brock, 2000).

The theoretical framework conceptualizes three types of brand beliefs particularly relevant for patient story advertising. Brand effectiveness beliefs reflect consumer perceptions of the healthcare brand's ability to deliver positive medical outcomes. These

beliefs align with physical outcome content demonstrating concrete treatment results.

Brand meaning beliefs capture perceptions of the brand's ability to provide life-changing experiences that enhance quality of life and personal growth. These beliefs connect with psychological outcome content illustrating profound personal transformations. Brand experience beliefs reflect expectations about the actual process of receiving care, aligning with experience content that illustrates what treatment feels like.

Brand Attitudes. Attitude toward the brand represents a critical intermediate outcome that bridges initial beliefs with behavioral intentions. In healthcare contexts, these attitudes take on particular significance as they often form without direct brand experience and must overcome both skepticism toward advertising and anxiety about medical decisions (van Laer et al., 2014). Patient stories shape these attitudes by creating emotional connections through transportation and identification while simultaneously building trust through authentic story elements.

Meta-analyses reveal consistent positive relationships between narrative transportation and attitudes ($r = 0.44$), with effects enhanced by character identification ($r = 0.37$) (van Laer et al., 2014). These effects appear particularly strong when stories achieve deep transportation while maintaining perceived authenticity. Research demonstrates that coherent stories with identifiable characters produce stronger attitudinal effects than fragmented or abstract presentations (Schreiner et al., 2018). These findings suggest attitudes form through both cognitive and emotional pathways, with transportation reducing resistance while identification enhances emotional connection. The theoretical framework conceptualizes brand attitudes as evaluations incorporating both story response and pre-existing healthcare beliefs. This distinction

matters because story attitudes may transfer to brand attitudes through transportation and identification processes, particularly when stories achieve deep engagement through well-crafted story elements.

Behavioral Intentions. Behavioral intentions represent the ultimate outcome for patient story advertising, capturing both personal treatment choices and social influence through recommendations. These intentions take on particular significance in healthcare contexts where decisions carry profound consequences and often influence others' choices through word-of-mouth (Shaffer et al., 2018b). Patient stories shape intentions by enhancing decision confidence through vicarious experience while simultaneously generating emotional engagement.

Meta-analytic evidence demonstrates the effectiveness of stories in driving behavioral intentions, particularly for health-related decisions ($r = 0.31$) (van Laer et al., 2014). Research shows stories enhance intention formation through multiple pathways—reducing uncertainty through concrete examples, building confidence through emotional engagement, and leveraging social proof through character identification (Shaffer et al., 2018a). These effects appear strongest when stories combine clear outcome illustrations with deep transportation.

The theoretical framework conceptualizes two distinct but related intention categories particularly relevant for patient story advertising. Personal use intentions reflect consumers' willingness to choose the healthcare brand for their own care, while recommendation intentions capture willingness to suggest the brand to others. This distinction matters because different story elements may distinctly influence these intention types—outcome content might particularly drive personal use intentions

through effectiveness beliefs, while experience content might enhance recommendation intentions through reduced uncertainty about the treatment process.

Brand Trust. Brand trust reflects consumers' confidence in a healthcare center's reliability, honesty, and safety, shaping their willingness to rely on its services. Trust is a key determinant of consumer attitudes and decision-making, influencing perceptions of healthcare quality and reducing uncertainty in service selection (Chaudhuri & Holbrook, 2001; Erdem & Swait, 2004). It is particularly critical in healthcare advertising, where consumers must perceive messages as credible to develop positive attitudes toward the healthcare brand (Soh et al., 2009). Research indicates that trust in advertising is a multidimensional construct that includes cognitive (perceptions of reliability and honesty), affective (positive emotions toward the brand), and behavioral (willingness to act based on the brand's messaging) components (Soh et al., 2009). Transparency in communication, such as risk disclosures and calls to action, has been shown to enhance brand trust by reinforcing credibility and consumer empowerment (Zhao et al., 2023). This study measures brand trust using a four-item scale assessing perceptions of the healthcare brand's trustworthiness, honesty, safety, and reliability. These dimensions are essential for fostering confidence in healthcare decisions and sustaining positive brand engagement.

Based on these concepts, the final hypothesis set for Study 1:

H5: Content type and character presence will interact with the following effects:

Interaction effects on belief items:

a) Physical content with character present will have stronger effects on brand effectiveness belief compared to physical content with character absent and compared to control.

b) Psychological content with character present will have stronger effects on brand meaning belief compared to psychological content with character absent and compared to control.

c) Experience content with character present will have stronger effects on brand experience belief compared to experience content with character absent and compared to control.

Interaction effects on affective forecasting:

d) Experience content with character present will have stronger effects on affective forecasting compared to experience content with character absent.

Interaction effects on brand beliefs:

e) Physical content with character present will have stronger effects on brand beliefs compared to physical content with character absent and compared to control.

f) Psychological content with character present will have stronger effects on brand beliefs compared to psychological content with character absent and compared to control.

g) Experience content with character present will have stronger effects on brand beliefs compared to experience content with character absent and compared to control.

H9: Plot structure and character presence will interact such that:

- a) Stories with high narrativity and character present will produce the highest levels of transportation.
- b) Stories with high narrativity and character present will produce the strongest ad effectiveness.

Summary

This theoretical framework integrates multiple narrative persuasion theories to propose candidate variables and relationships that the studies will empirically test. The research will determine which storyteller elements—content types, identifiable characters, and imaginable plots—significantly influence consumer responses in patient story advertising, how they might interact with story receiver characteristics, and which theoretical relationships best explain these effects. Grounded in the ETIM (van Laer et al., 2014) and the NIM (Shaffer et al., 2018a), the model highlights transportation, identification, and eudaimonic symbolism as potential psychological mechanisms through which stories may achieve narrative effects.

The framework identifies moderators, such as healthcare involvement and threat severity to account for variability in consumer narrative processing. These moderators emphasize the role of context and individual differences in shaping the effectiveness of patient story advertising. By conceptualizing advertising outcomes as brand beliefs, attitudes, and intentions, this model links theoretical insights to practical implications for healthcare marketing.

The hypotheses derived from this framework operationalize the relationships among theoretical constructs. They test how storyteller elements influence narrative engagement mechanisms, moderated by story receiver characteristics, and mediated by

psychological mechanisms, to produce specific advertising outcomes. For example, hypotheses explore whether psychological outcome content enhances brand meaning through eudaimonic symbolism or if identifiable characters increase transportation and identification to influence attitudes and intentions. See Table 1 for hypotheses.

This framework provides the foundation for two experimental studies that aim to determine how intrinsic features of cancer patient stories—content, character, and plot—individually and interactively influence consumer perceptions, decision making, and brand outcomes in patient story advertising. Study 1 examines the effects of content types and character presence, while Study 2 evaluates the impact of plot narrativity and character presence. Experiments are justified because of their unique ability to establish causal relationships and allow for systematic examination of story features on consumer decision making.

Controlled experiments, as described by Chang (2017), allow researchers to manipulate independent variables (such as story content, character presence, and plot narrativity) while controlling for extraneous factors. This ensures that any observed effects on dependent variables, such as consumer attitudes or decision-making confidence, are directly attributable to the manipulated elements. Given the high stakes in healthcare advertising, where vulnerable consumers may base critical decisions on emotionally compelling yet potentially misleading stories, this level of rigor is essential. The experimental approach provides robust evidence of how individual and combined story features influence consumer perceptions and decisions, addressing significant gaps in current descriptive and theoretical research.

Furthermore, experiments are particularly suited for advancing theoretical frameworks, a key goal of this dissertation. As Chang (2017) emphasizes, experiments play a critical role in theory-building within advertising research by enabling the identification and testing of causal mechanisms. By systematically testing hypotheses derived from this dissertation's theoretical framework, the experimental design not only contributes to the scholarly understanding of narrative persuasion but also provides practical guidelines for ethical and effective advertising practices in healthcare. This alignment of methodological rigor with theoretical and practical goals underscores the necessity of the experimental approach in this research.

Chapter 3: Study 1

Method

A 3 (Content type: Physical outcome vs psychological outcome vs experience) x 2 (Identifiable Character: Present vs absent) x 1 (No message control) between-subjects factorial design online experiment was used to test hypotheses 1-5. A total of six experimental stimuli were developed (see Materials and Manipulations). Participants in the control condition were shown an objective description of University Medical Center, the fictitious academic health center brand used in the experimental stimuli (see Procedure section). This resulted in seven conditions. A priori power analysis using G*Power (Cohen's $d = 0.20$, $\alpha = .05$, power = .80) showed the study required 1477 participants. The expected effect size was determined based on meta-analyses that compare story features (Sun et al., 2024). Participants were compensated \$3.50 for completing the study.

Materials and Manipulations

Stimuli were developed using Claude (Anthropic, 2024) and following van Berlo et al.'s (2024) MADE framework for creating experimental stimuli using generative Artificial intelligence (AI). This framework is based on experimental tests that show generative AI is capable of producing ecological valid advertising stimuli that is indistinguishable from professionally create ads (van Berlo et al., 2024). Generative AI enables precise manipulation of specific elements in the stimuli while maintaining uniformity in other aspects, thus improving internal validity as well (van Berlo et al., 2024). The MADE framework includes eight steps through four phases (mapping,

assembling, demonstrating, and executing) designed to ensure effective application of generative AI for stimulus development. See Appendix A for stimuli.

Mapping. The mapping phase includes determining manipulations, context, and choosing existing ads to use as examples.

Manipulations. Study 1 manipulates three types of patient story content based on Shaffer and Zikmund-Fisher's (2013) taxonomy. Each content type focuses on a distinct aspect of the healthcare experience: Physical outcome content focuses on concrete medical and health-related results of treatment (Shaffer & Zikmund-Fisher, 2013). Conditions 1 and 2 describe how chemotherapy and radiation shrink colon cancer tumors, how post-treatment scans reveal the absence of cancer, and how patients return to normal activities. This content type aligns with the advertising information that Park et al. (2023) identify as evidence of good medical outcomes. Psychological outcome content describes changes in quality of life, personal growth, and psychological well-being resulting from healthcare experiences (Shaffer & Zikmund-Fisher, 2013). Psychological outcome content communicates eudaimonic themes relating to life purpose and meaning (Hamby et al., 2023). Conditions 3 and 4 describe patients' changed outlook on life, renewed focus on family, and involvement with cancer support groups. This type of content emphasizes psychological outcomes such as patient satisfaction (Park et al., 2023) and emotional transformations rather than physical changes. Experience content describes the subjective, lived experience of going through treatment (Shaffer & Zikmund-Fisher, 2013). This content focuses on "experiential aspects" of treatment, including feelings, visceral experiences, and the time and energy involved in healthcare (Shaffer & Zikmund-Fisher, 2013, p. 7). Conditions 5 and 6 describe the frequency of radiation

therapy, the side effects of chemotherapy, feelings of fatigue, and the support of family and nurses.

Study 1 also manipulates identifiable character—whether the story content is delivered via an identifiable character or not (Kim et al., 2012). In Study 1, the character present condition shares content about Sarah Mitchell, a 42-year-old woman. In all Study 1 conditions, Sarah is identified by her full name and age, and specific experiences and outcomes are described. Additional identifiable information varies slightly in each condition. Condition 1 includes reference to Sarah’s participation in a 5k race as evidence of her positive physical outcomes. Condition 3 includes reference to her daughter, Emma, and a description of her efforts to support newly diagnosed cancer patients as evidence of her positive psychological outcomes. Condition 5 includes reference to her husband, Mark, and her love of morning coffee as context for her treatment experiences. Study 2 character present conditions include all of this identifiable information. By contrast, the character absent condition presents the same content in an aggregated, generalized format that refers broadly to “patients” rather than any specific individual. Following Kim et al.’s (2012) approach, this condition presents disembodied characters rather than embodied characters while maintaining the same core information. For instance, Condition 3 begins, “Sarah Mitchell, age 42, has become an advocate for cancer screening …” In Condition 4, this is changed to say, “Patients become advocates for cancer screening …” Character present conditions primarily use past tense to describe the patient experiences, while character absent conditions primarily use present tense because they are describing generalized experiences. This allows examination of how the

presence versus absence of exemplification affects engagement while holding content constant.

Context. The stimuli were designed to resemble content that is used in patient stories produced by academic health centers. The academic health center healthcare brand context is important because academic health centers enjoy “positions of power and prestige in the health care system” (Blumenthal et al., 1997), they are regulated less than other healthcare brands (Schwartz & Woloshin, 2019), and their advertisements have been shown to lack balanced information about risks and benefits (Larson et al., 2005). Although nearly all patient stories include quotes from doctors or other care team members, I decided against adding doctor quotes to avoid introducing unintended source effects or confounds. The stimuli do include a named doctor (medical oncologist Michael Chen) and references to nurses, but there are no direct quotes from either. This maintains ecological validity while avoiding potential confounds.

Next, the stimuli were designed around colon cancer as a health condition. Colon cancer was chosen because of its relevance, increasing prevalence, and versatility for experimental stimuli. It affects both men and women equally, making it broadly relatable while avoiding gender-specific biases (Colorectal Cancer Facts & Figures 2023-2025, 2023). Of all U.S. cancer deaths in people younger than 50, colorectal cancer is now No. 1 for men and No. 2 for women (Collins, 2024). As one of the most common cancers globally, colon cancer offers a meaningful context for consumers, particularly with the growing concern over early-onset cases that highlight the importance of early detection. Its symptoms, such as changes in bowel habits or rectal bleeding, provide clear markers that can be effectively portrayed in patient stories to emphasize prevention and timely

care. Additionally, colon cancer treatment spans a range of outcomes—physical, psychological, and experiential—that align with the study’s manipulations, allowing for emotionally resonant stories grounded in medical reality.

Finally, the stories feature a female patient in the character present conditions. A woman was chosen because research shows women make 80% of healthcare decisions in the United States (Wentz-Graff, 2017). These decisions include researching health information, selecting providers, scheduling appointments, and managing family health records, making women a highly relevant demographic for healthcare stories.

Choosing Existing Ads. Because the experimental stimuli are designed to resemble real patient stories, I searched for colon cancer patient stories published on the websites of academic health centers. I copied the text from eight colon cancer patient stories and provided them to Claude for analysis (see Formulating Prompts section). This approach provided objective baselines for stimuli length, reading ease, and other features, helping to ground them in realistic contexts and remain consistent across experimental conditions. This aligns with the recommendations of the MADE framework for high-quality, controlled manipulations. Development of the experimental stimuli were guided by the content and character features of these stories. In addition, the patient’s age was chosen based on the median age of patients in the example stories. The doctor was identified as a man because 75 percent of doctors in the example stories were men.

Assembling. The assembling phase includes choosing a generative AI tool, formulating prompts, evaluating output, and editing output.

Choosing a Generative AI Tool. The choice of Claude (Anthropic, 2024) over ChatGPT (OpenAI, 2024) for designing experimental stimuli is rooted in its safety-

focused design philosophy, model behavior, and commitment to ethical considerations. Claude prioritizes generating responses that are interpretable, cautious, and aligned with user intent. This minimizes risks of harmful or unintended outputs. Its behavior reflects a strong emphasis on ethical alignment, ensuring that experimental materials maintain integrity and are free from potential bias or inappropriate content. This is especially important in research contexts where sensitive or nuanced manipulations must be accurately represented without introducing confounds or ethical concerns. By leveraging Claude's cautious and safety-centric approach, researchers can ensure their stimuli align with rigorous methodological standards and ethical research practices, fostering credibility and trust in their findings.

Formulating prompts. I began by providing Claude the real colon cancer patient stories, information about the research design, explanations of the manipulations, and context information (academic health center, colon cancer condition, female patient character). After providing this information, I asked Claude to confirm understanding of the information. I corrected any misinterpretations and modified my materials if the misinterpretation stemmed from unclear inputs. I followed this procedure for all prompts. After confirming Claude's understanding, I asked Claude to systematically analyze the real stories for content types and character information based on manipulation descriptions. As part of this analysis, I asked Claude to calculate word counts and Flesch reading ease scores (Flesh, 1951) for each story as well as for each type of content within stories. The results of this analysis were used as targets for the experimental stimuli. Next, I asked Claude to develop Study 2 Condition 1 (high narrativity and character present) stimuli because this condition most closely aligns with the real stories, and it

includes all of the content types tested in Study 1. I asked Claude to emulate the real stories while ensuring manipulations were accurate. Each prompt specifically outlined the length and reading ease targets gleaned from the initial analysis as well as the key elements needed to implement each experimental condition effectively.

Evaluating and Editing Output. The output evaluation process assessed multiple criteria, including accurate implementation of experimental manipulations, consistency with the real stories, realism of patient experiences, appropriate length and tone, reading ease, absence of confounding elements, and proper use of writing features such as metaphor. I analyzed each output for the required information and noted any deficiencies to Claude. For each output, I also asked Claude to evaluate ecological validity and internal validity. Manual editing was necessary at each step to standardize elements across all conditions while maintaining realism. This included ensuring consistent use of the medical center name, adjusting story lengths to be comparable across conditions, refining transitions, modifying medical terminology for reading ease, adjusting character details, and calibrating emotional content for experience conditions. To ensure medical accuracy, all clinical details (symptoms, treatments, timelines) were drawn from the real patient stories. Throughout this process, the goal was to create stimuli that effectively implemented the experimental manipulations while maintaining ecological validity as authentic patient story advertising. To ensure medical accuracy, the treatments described in the stimuli were the same as those described in real stories. The resulting stimuli satisfied each of the six experimental conditions (physical outcome content/character present; physical outcome content/character absent; psychological outcome content/character present; psychological outcome content/character absent;

experience content/character present; and experience content/character absent). See Table 2 for word count and reading ease scores and see Appendix A for stimuli.

For the Demonstrating phase, the stimuli will be pre-tested to ensure participants can discern the manipulations. The final Executing phase will incorporate any needed refinements before using the stimuli in the main experiment.

Pre-Test

Before the main experiment, a pre-test study was conducted to examine how consumers perceive the experimental stimuli. Because the study's two manipulations (content type and character) are intrinsic message features, manipulation checks to confirm participant perceptions of the manipulations are unnecessary (O'Keefe, 2003). However, a pre-test can assess participant perceptions of the message features, providing valuable theoretical insights into narrative processing. A priori power analysis using G*Power (Cohen's $d = 0.70$, $\alpha = .05$, power = .80) showed the pre-test required 180 participants. A total of 216 participants were recruited through Prolific to ensure at least 30 participants per condition accounting for attrition. Participants were required to be located in the United States, ages 18 or older, speak English as their primary language, and have no history of cancer. The final sample size was 210 (33-36 per condition). Average completion time was six minutes and 31 seconds. Each participant was compensated \$2 for completing the study.

First, each participant was shown information about the research and asked to consent. Next, each participant was randomly assigned to one of six experimental conditions and viewed one patient story. After reading the story, participants completed measures to assess their perceptions of content type and character. For content type,

participants were presented with a multiple-choice question that asked them to complete this sentence: “This story primarily focuses on...” The choices were: “concrete medical outcomes and treatment effectiveness” (physical outcome content), “personal transformation and changes in life perspective” (psychological outcome content), and “day-to-day experiences of going through treatment” (experience content). For character, participants were presented with a multiple-choice question that asked them to complete this sentence: “This story describes...” The choices were: “one specific patient’s experience” (character present) and “experiences of patients in general” (character absent). Because content and character are intrinsic message features, these measures are not intended to validate the manipulation, *per se*. Rather, the results of these questions provide theoretical insight into how consumers perceive patient stories and the extent to which the operationalizations align with those perceptions. Conditions that fall below 75% threshold will be examined for insights that may influence the main study.

Participants assigned to the psychological outcome content conditions (Condition 3 and 4) were presented with the eudaimonic appreciation scale to ensure the content was perceived as having eudaimonic themes. This follows the procedure conducted by Hamby et al. (2023) to ensure this dissertation’s conceptualization of eudaimonic theme aligns with theirs. The eudaimonic appreciation scale asks participants to rate their agreement with the following statements on a scale of 1 (strongly disagree) to 7 (strongly agree): “I found this story to be very meaningful”, “I was moved by this story”, and “The story was thought provoking”. Based on Hamby et al. (2023), success is represented by mean scores above the scale midpoint (>4.0). In addition, participants in all conditions rated story quality measures to ensure the conditions did not differ in ways that may confound

the results. These measures included perceived realism (“If the events in this story were to happen to the typical person, they would make sense”) and two items from the message credibility scale (“The story is believable”, “The story is trustworthy”) on 7-point scales. The two credibility items were combined into a mean score after confirming acceptable reliability (Cronbach’s $\alpha > .70$). Success was mean scores above the scale midpoint (>4.0) on both realism and credibility measures.

All experimental conditions demonstrated strong perceived realism ($M_s = 5.64-6.11$) and credibility ($M_s = 5.62-6.25$), with means well above the threshold of 4.0 on 7-point scales. The reliability of the two-item credibility scale was good ($\alpha = 0.80$). For psychological outcome content, eudaimonic appreciation ratings were satisfactory for Condition 3 ($M = 5.43$, $SD = 1.18$, $n = 36$) and Condition 4 ($M = 5.11$, $SD = 1.34$, $n = 36$), confirming that participants perceived these stories as having eudaimonic themes as theorized by Hamby et al. (2023). For content and character measures, participants correctly identified both at the 75% level.

Measures

Unless otherwise noted, participants are asked to indicate the extent to which they agree or disagree with the statements, with 1 = strongly disagree and 7 = strongly agree. See Appendix B for a full list of measures for both studies.

Brand Beliefs. Brand beliefs were measured using three items adapted from Hasktak and Mazis (2003). Participants were asked to fill in the blank for three statements. Response options were on a seven-point scale from 1 (none) to 7 (all). The items were “I believe the healthcare center in the story improves health conditions for ... of its patients” (brand effectiveness), “I believe the healthcare center in the story

improves quality of life for ... of its patients” (brand meaning), and “I believe ... of the healthcare center’s patients have a good experience” (brand experience). These measures capture beliefs about the typical patient experience.

Brand Attitude. Attitude toward the brand was measured using a semantic differential scale adapted from Spears and Singh (2004), with pairs such as “Unappealing/Appealing” and “Bad/Good.”

Brand Intentions. Intentions were assessed using two semantic differential scales based on Kemp et al. (2017). The first scale asked participants to rate three word sets for this statement: “If the situation called for it, how likely would you be to use the services of the healthcare center in the story?” Options were unlikely/likely, improbable/probable, and definitely would not/definitely would. The second scale asked participants to rate three word sets for this statement: “If the situation called for it, how likely would you be to recommend the services of the healthcare center in the story to friends or loved ones?” Options were unlikely/likely, improbable/probable, and definitely would not/definitely would.

Brand Trust. Brand trust was assessed with four items based on Zhao et al. (2023). These items included, “I trust the healthcare center in the story and “this is an honest healthcare center.”

Ad Effectiveness. Ad effectiveness was modeled as a second-order latent variable made up of brand beliefs, brand attitudes, brand intentions, and brand trust.

Affective Forecasting. Affective forecasting was measured using two items from Shaffer et al. (2013). Participants were asked to rate two statements: “I have a clear

feeling about what it is like to undergo this treatment” and “I have a clear feeling about what it is like to be a patient of this healthcare center.”

Narrative Transportation. Narrative transportation was measured using the Transportation Scale–Short Form (TS-SF) developed by Appel et al. (2015). Participants rated their agreement with statements such as, “I could picture myself in the scene of the events described in the story” and “I was mentally involved in the story while reading it.”

Identification. Identification with characters was measured using 12 items adapted from Huang and Fung (2024). Participants rated their agreement with statements such as, “While reading, I felt as if I were the patient” (merging) and “During reading, I imagined what it would be like to be in the position of the patient” (perspective taking).

Perceived Similarity. Perceived similarity was measured using three items adapted from Rimal and Morrison (2006). Items were, “The patient in the story is similar to me in terms of the way they think,” “The patient in the story is similar to me in terms of their life experiences,” and “The patient in the story is similar to me in terms of their overall outlook on life.”

Emotional Responses. Emotional responses were measured based on five options for completing this statement, “While reading the story, I felt...” Options included “hopeful,” “inspired,” “moved,” “touched,” and “uplifted.” These emotions were selected based on narrative transportation theory and prior research showing they align with patient story advertising that emphasizes themes of hope, transformation, and survival (Berry et al., 2020; Kemp et al., 2017; McLeod, 2023).

Eudaimonic Symbolism. Eudaimonic symbolism was assessed using three items adapted from Hamby et al. (2023). Participants were asked to rate their agreement with

three items: “this story stands for something meaningful”, “this story symbolizes something significant”, and “this story represents an important meaning.”

Perceived Realism. Perceived realism was assessed using one item from Shapiro & Kim (2012): “If the events in this story were to happen to the typical person, they would make sense.”

Perceived Message Credibility. Perceived message credibility was assessed using three items from Zhao et al. (2023). These items included “The story is believable” and “The story is trustworthy.”

Demographics. Demographic information was collected using three measures: age, gender, and education level. Age was assessed with a multiple-choice question asking participants to indicate their age group (e.g., “18–24,” “25–34,” “55 or older”). Gender was measured with a multiple-choice question asking participants to identify their gender, with options including “Male,” “Female,” and “Other (please specify).” Education level, adapted from Andersen (1995) and van Laer et al. (2014), was assessed by asking participants to select the highest level of education they had completed (e.g., “Some high school or less,” “Bachelor’s degree,” “Graduate or professional degree”).

Procedure and Participants

Participants were recruited through Prolific and were required to be located in the United States, aged 18 or older, speak English as their primary language, and have no history of cancer. After providing informed consent, participants were presented with pre-exposure measures (see Appendix B). Next, participants were randomly assigned to one of seven conditions: six experimental conditions and the control condition. Those assigned to the control condition were shown the following description of University

Medical Center, the fictitious academic health center used in the stimuli: “University Medical Center is an academic health center that combines patient care, medical education, and research missions. As an academic health center, it serves as both a hospital system and a site for training medical professionals. Healthcare providers at University Medical Center deliver patient care while also conducting research and teaching the next generation of medical professionals.” Following this message, participants in the control condition completed brand outcome and demographic measures.

Participants assigned to experimental conditions then viewed one patient story. After reading the story, participants completed the manipulation check to verify their perception of the content type (physical outcome, psychological outcome, or experience) and identifiable character (present vs absent). They also completed story quality measures perceived realism and perceived message credibility. Next, they responded to the story response measures: attention, narrative transportation, identification, eudaimonic symbolism, perceived similarity, emotional responses, affective forecasting, and attitude toward the story. Finally, they completed the outcome measures (brand belief, attitude toward the brand, intentions, and brand trust) and demographics measures. An attention check question was included after story response measures and before outcome measures.

A total of 1577 participants were recruited through Prolific to ensure at least 211 participants per condition accounting for attrition. Participants were required to be located in the United States, ages 18 or older, speak English as their primary language, and have no history of cancer. Participant study completion times were analyzed using two criteria. First, Prolific estimated maximum completion time at 67 minutes (based on

a 20-minute study duration), leading to the removal of six participants who exceeded this limit. Second, fast finishers were identified using Prolific's definition (three standard deviations below the mean) and Wood et al.'s (2017) criterion of one second per item. No participants met these thresholds. The final sample size was 1498 (211-217 per condition). Average completion time was 12 minutes and 44 seconds.

The average age of participants was 40.65 years ($SD = 13.5$), with ages ranging from 18 to 81. In terms of gender distribution, 620 participants identified as male (41.4%), 848 identified as female (56.6%), and 13 identified as another gender (0.9%), while 17 participants (1.1%) did not provide a response. Regarding educational attainment, 9 participants (0.6%) had completed some high school or less, 233 (15.6%) had earned a high school diploma or GED, and 306 (20.4%) had attended some college but did not obtain a degree. Additionally, 182 participants (12.1%) held an associate's or technical degree, 506 (33.8%) had a bachelor's degree, and 262 (17.5%) had completed a graduate or professional degree.

After completing all measures, participants were shown a debriefing statement that explained the purpose of the study. The statement clarified that University Medical Center is not a real healthcare institution and note that this minor deception was necessary to ensure authentic responses. The statement also provided a link to information about colon cancer. See Appendix C for the full debriefing statement.

Story Quality and Manipulation Measures

All conditions demonstrated strong perceived realism ($M_s = 5.80-5.88$) and credibility ($M_s = 5.95-6.29$), with means well above the threshold of 4.0 on 7-point scales. The reliability of the two-item credibility scale was good ($\alpha = 0.77$). For

psychological outcome content, eudaimonic appreciation ratings were satisfactory for Condition 3 ($M = 5.52$, $SD = 1.11$, $n = 215$) and Condition 4 ($M = 5.35$, $SD = 1.26$, $n = 212$). For content and character measures, participants correctly identified all conditions at the 75% level.

Results

This dissertation tested models for both studies using structural equation modeling (SEM) using the *Lavaan* package (Rosseel, 2012) in *R* (R Core Team, 2024). SEM is an appropriate analytical tool for examining the complex relationships central to this research because it can accommodate latent constructs, test indirect and interaction effects, and validate theoretical models through model fit indices (Kline, 2016). SEM's ability to simultaneously analyze multiple relationships among observed and latent variables makes it particularly valuable for understanding the nuanced interplay of factors influencing consumer response to cancer patient stories. For each study, multiple models were examined: measurement models to validate moderators, mediators, and dependent variables, and structural models to test hypotheses, based on Kline's (2016) recommended two-step process. In addition to latent variable models, the multi-stage analytical approach involved regression analyses, coefficient comparisons, and mediation analyses to fully test the hypothesized effects of content type and character presence on advertising outcomes.

Evaluation of the overall fit of models was based on the criteria from Little (2013) and Hu and Bentler (1999). Hu and Bentler (1999) suggest .06 or lower for the values of root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) and .95 or higher for the values of comparative fit index (CFI) and

Tucker-Lewis index (TLI). These criteria indicate good fit. Little (2013) suggests RMSEA and SRMR should be less than .08 and CFI/TLI should be greater than .90 for acceptable model fit. These standards acknowledge that models are approximation tools and cannot be expected to match precisely because of factors such as model complexity, sample size, theoretical framework, and norms in the area of study (Brown, 2015; Little, 2013; Marsh et al., 2004).

All Study 1 latent variable models demonstrated acceptable to good fit (Hu & Bentler, 1999; Little, 2013). The primary model examining content-type effects on brand beliefs and ad effectiveness (H1e-H1j) showed good fit with 1498 observations, 71 freely estimated parameters, and 226 degrees of freedom (elements = 297, calculated as $p(p+1)/2$ where $p = 24$ observed variables): $\chi^2(226) = 1171.04$, $p < .001$, CFI = .969, TLI = .964, RMSEA = .053, SRMR = .032. The model examining character presence effects (H2a-H2f, H3a-H3b) demonstrated acceptable fit with 1282 observations, 86 freely estimated parameters, and 224 degrees of freedom (elements = 310, calculated as $p(p+1)/2$ where $p = 24 + \sqrt{2}$ observed variables): CFI = .924, TLI = .917, RMSEA = .058, Robust RMSEA = .051, SRMR = .075. The model testing eudaimonic symbolism mediation (H4) showed good fit with 427 observations, 27 freely estimated parameters, and 25 degrees of freedom (elements = 52, calculated as $p(p+1)/2$ where $p = 10$ observed variables): CFI = .983, TLI = .975, RMSEA = .077, SRMR = .014. For hypotheses involving specific observed variables rather than latent constructs (e.g., H1a-H1c), regression analyses with parameter comparison tests were used to directly evaluate the relative strengths of content type effects. For interaction effects (H5), a focused analytical

approach was used to examine each content type separately to avoid multicollinearity issues and more clearly test the interaction hypotheses.

Table 3 presents descriptive statistics for the key outcome variables in Study 1. The specific belief items (beliefs_1, beliefs_2, beliefs_3) showed similar distributions with means of approximately 5 on a 7-point scale (beliefs_1: $M = 4.96$, $SD = 1.10$; beliefs_2: $M = 4.97$, $SD = 1.14$; beliefs_3: $M = 4.83$, $SD = 1.12$). These relatively positive evaluations reflect the generally favorable responses to the stimuli across experimental conditions.

[Insert Table 3 here]

The distribution of participants across experimental conditions was well-balanced: physical outcome content with character present ($n = 211$, 14.1%), physical outcome content with character absent ($n = 214$, 14.3%), psychological outcome content with character present ($n = 215$, 14.4%), psychological outcome content with character absent ($n = 212$, 14.2%), experience content with character present ($n = 217$, 14.5%), experience content with character absent ($n = 213$, 14.2%), and control condition ($n = 216$, 14.4%).

Measurement models were used to validate the psychometric properties of the constructs used in both Study 1 and Study 2. Separate confirmatory factor analyses (CFAs) were conducted for each group of constructs (control and moderator variables, mediators, and dependent variables) to isolate and address potential measurement issues within each conceptual domain. This approach allowed for focused refinement of measurement components before integrating them into a more complex model. This analysis employed robust maximum likelihood estimation (MLR).

Control and Moderator Variables. This analysis included the following latent variables: transportability, trait empathy, healthcare attitude, healthcare access, familiarity, threat severity, perceived message credibility, and attention. This analysis was done on the full data set because all participants answered these measures. The initial measurement model had 1498 observations and, using the formula $p(p+1)/2$, the model had 496 elements. This model had 127 freely estimated parameters. The model had 467 degrees of freedom. The initial CFA revealed unacceptable model fit ($CFI = 0.905$, $TLI = 0.893$, $RMSEA = 0.048$, $SRMR = 0.047$).

Perceived message credibility items 4-5 showed poor loadings (0.367, 0.447). Although perceived message credibility is commonly conceptualized as a multidimensional construct comprising believability, accuracy, trustworthiness, unbiasedness, and completeness (Meppelink et al., 2019; Zhao et al., 2023), the latter two are less relevant in the context of personal stories of healthcare experiences, which in Study 1 are by design incomplete. In addition, the credibility item about bias may be less relevant because the messages do not appear to be persuasive in nature. For this reason, the measurement model was revised to omit perceived message credibility items 4-5. Next, parceling was used to reduce specific variance for trait empathy and attention (Little et al., 1999; Little et al., 2013). Domain-representative parceling was used for trait empathy to preserve the multidimensional nature of the construct, which encompasses perspective taking (cognitive empathy) and empathic concern (affective empathy) (Davis, 1983). Method-based parceling was used for attention to address effects associated with positively and negatively worded items (Weijters et al., 2013; Podsakoff et al., 2003). The six attention items were parceled into two indicators—one combining the focused

attention items (positively worded) and another combining the distraction indicators (negatively worded and reverse-coded)—to account for method variance while maintaining construct representation. This parceling approach aligns with recommendations from Little et al. (2013), who suggest that parceling can effectively reduce parameter estimates, improve model fit, and address non-normality issues when theoretically appropriate.

The revised measurement model had 1498 observations and, using the formula $p(p+1)/2$, the model had 351 elements. The model had 100 freely estimated parameters and 224 degrees of freedom. The CFA revealed good model fit ($CFI = 0.964$, $TLI = 0.955$, $RMSEA = 0.037$, $SRMR = 0.039$).

Mediator Variables. This analysis included the following latent variables: transportation, identification, eudaimonic symbolism, perceived similarity, emotional response, and affective forecasting. This analysis was done only on the experimental conditions because participants in the control condition did not answer these measures. The initial measurement model had 1282 observations and, using the formula $p(p+1)/2$, the model had 528 elements. This model had 108 freely estimated parameters and 419 degrees of freedom. The initial CFA revealed unacceptable model fit ($CFI = 0.843$, $TLI = 0.826$, $RMSEA = 0.078$, $SRMR = 0.073$).

To enhance the psychometric properties of this measurement model, parceling was used. First, domain-representative parceling was used to preserve the multidimensional structure of the identification variable, creating parcels that reflect its theoretical subfactors of merging, perspective taking, understanding, and emotional involvement. Next, content-based parceling was used with the emotional response

variable to address high residual covariances between conceptually similar items, with parcels representing distinct emotional dimensions (hopeful, moved/touched, and inspired/uplifted). Finally, transportation was parceled using the item-to-construct balance approach (Little et al., 2002) to create three balanced indicators. The transportation construct, with its six individual items, exhibited multiple high modification indices indicating problematic cross-loadings with other constructs, particularly with emotion parcels and identification items. This parceling strategy is theoretically justified given transportation's position as the deepest form of narrative engagement in Shaffer et al.'s (2018a) narrative immersion model. In addition, correlated residuals were allowed between specific indicators that showed conceptual similarity beyond their shared factor variance, including correlations between emotion parcels 1 and 3, identification parcels merging and emotional involvement, and similarity items 1 and 3.

These modifications maintain the theoretical integrity of the constructs while providing a more accurate representation of the data structure aligned with Shaffer et al.'s (2018a) continuum of narrative engagement, creating a robust foundation for testing the study's structural relationships and hypotheses. The revised measurement model had 1282 observations and, using the formula $p(p+1)/2$, the model had 234 elements. The model had 72 freely estimated parameters and 117 degrees of freedom. The CFA revealed acceptable model fit (robust CFI = 0.952, robust TLI = 0.937, robust RMSEA = 0.075, SRMR = 0.047). The transportation scale (three parcels) demonstrated good internal consistency. The identification scale (four parcels: merging, perspective, understanding, emotional) showed adequate structure after accounting for correlated

residuals between theoretically related components (merging and emotional). The eudaimonic symbolism measure (three items) demonstrated excellent measurement properties with high factor loadings (standardized loadings > 0.8) and substantial variance explained ($R^2 = .806$ to $.894$).

Dependent Variables. This analysis included the following latent variables: brand beliefs, attitude toward the brand, intentions-self, intentions-other, and trust. In addition, a second-order latent variable was created to represent ad effectiveness, an overarching construct that captures the shared variance among brand beliefs, attitudes, intentions, and trust. This analysis was done on the full data set because all participants answered these measures. The measurement model had 1498 observations and, using the formula $p(p+1)/2$, the model had 171 elements. This model had 59 freely estimated parameters and 130 degrees of freedom. The CFA revealed good model fit ($CFI = 0.973$, $TLI = 0.968$, $RMSEA = 0.045$, $SRMR = 0.037$).

The brand beliefs latent variable, measured using three indicators (beliefs_1, beliefs_2, beliefs_3), showed strong factor loadings (standardized loadings > 0.8) and good inter-item correlations ranging from $.751$ to $.843$, supporting their use as a unified construct. The ad effectiveness second-order latent variable, comprising five first-order factors (brand beliefs, attitude brand, intentions self, intentions other, and trust), demonstrated strong structural validity with substantial variance explained in all first-order factors (R^2 ranging from $.530$ to $.774$).

Hypothesis Testing

Content Type Effects (H1). Hypotheses H1a, H1b, and H1c predicted that each content type would have stronger effects on its corresponding belief item compared to other content types. Table 4 presents the results of these tests.

[Insert Table 4 here]

Hypothesis H1a predicted that physical outcome content would have stronger effects on physical beliefs (beliefs_1) compared to other content types. This hypothesis was supported. Physical content had significantly stronger effects on physical beliefs compared to both psychological outcome content ($b = 0.162$, $SE = 0.074$, $p = .028$, $\beta = 0.067$, 95% CI [0.017, 0.306]) and experience content ($b = 0.166$, $SE = 0.072$, $p = .022$, $\beta = 0.068$, 95% CI [0.024, 0.307]). The effect sizes were small ($\beta < 0.10$).

Hypothesis H1b predicted that psychological outcome content would have stronger effects on psychological beliefs (beliefs_2) compared to other content types. This hypothesis was not supported. Psychological content did not have significantly stronger effects on psychological beliefs compared to experience content ($b = 0.041$, $SE = 0.081$, $p = .610$, $\beta = 0.017$, 95% CI [-0.117, 0.200]). Moreover, contrary to expectations, physical outcome content had significantly stronger effects on psychological beliefs compared to psychological outcome content ($b = -0.174$, $SE = 0.076$, $p = .022$, $\beta = -0.069$, 95% CI [-0.322, -0.025]).

Hypothesis H1c predicted that experience content would have stronger effects on experience beliefs (beliefs_3) compared to other content types. This hypothesis was not supported. Experience content did not have significantly stronger effects on experience beliefs compared to other content types. In fact, both physical outcome content ($b = -0.323$, $SE = 0.075$, $p < .001$, $\beta = -0.131$, 95% CI [-0.471, -0.175]) and psychological

outcome content ($b = -0.180$, $SE = 0.080$, $p = .024$, $\beta = -0.073$, 95% CI [-0.337, -0.023]) had significantly stronger effects on experience beliefs compared to experience content.

Overall, these results provide limited support for the Selective Match-Up hypothesis. While physical outcome content showed the expected stronger effect on its corresponding belief item, psychological and experience content did not demonstrate the hypothesized content-specific advantages. This suggests that content matching may operate selectively, primarily for concrete, tangible outcomes rather than for abstract or experiential outcomes.

Hypothesis H1d predicted that experience content would have stronger effects on affective forecasting compared to both physical and psychological outcome content. This hypothesis was fully supported. As shown in Table 5, experience content had significantly stronger effects on forecasting compared to physical outcome content (coefficient difference = 0.637, $SE = 0.109$, $t = 5.83$, $p < .001$) and psychological outcome content (coefficient difference = 1.160, $SE = 0.109$, $t = 10.63$, $p < .001$). These medium to large effect sizes were among the strongest observed in the study.

[Insert Table 5 here]

These results indicate that experience-focused content was substantially more effective at facilitating affective forecasting (anticipation of future emotional states) compared to both physical and psychological outcome content. This finding supports the theoretical proposition that experience-focused stories are particularly effective at helping people envision how they might feel in future healthcare situations.

Hypotheses H1e, H1f, and H1g predicted that each content type would have stronger effects on brand beliefs compared to the control condition. However, as shown

in Table 6, none of these hypotheses were supported. Contrary to expectations, several experimental conditions showed significant negative effects on brand beliefs compared to control.

[Insert Table 6 here]

Specifically, physical outcome content with character absent had a significant negative effect on brand beliefs ($b = -0.141$, $SE = 0.071$, $p = .047$, $\beta = -0.050$). Similarly, psychological outcome content with character present had a significant negative effect ($b = -0.152$, $SE = 0.072$, $p = .034$, $\beta = -0.054$), as did experience content with character absent ($b = -0.239$, $SE = 0.079$, $p = .002$, $\beta = -0.084$). The remaining experimental conditions showed non-significant effects on brand beliefs compared to control.

Hypotheses H1h, H1i, and H1j predicted that each content type would have stronger effects on overall ad effectiveness compared to the control condition. As shown in Table 7, these hypotheses received mixed support.

[Insert Table 7 here]

Hypothesis H1h, which predicted that physical outcome content would have stronger effects on ad effectiveness than control, was fully supported. Both physical outcome content with character present ($b = 0.196$, $SE = 0.071$, $p = .006$, $\beta = 0.095$) and physical outcome content with character absent ($b = 0.153$, $SE = 0.074$, $p = .038$, $\beta = 0.074$) had significant positive effects on ad effectiveness compared to control. However, neither Hypothesis H1i (psychological outcome content) nor Hypothesis H1j (experience content) was supported. None of the psychological or experience content conditions showed significant effects on ad effectiveness compared to control (all $p > .05$). These results reveal an interesting pattern: Although physical outcome content enhanced overall

ad effectiveness, it simultaneously showed negative or non-significant effects on specific brand beliefs. This divergent pattern between brand beliefs and ad effectiveness, which we term the “Persuasion Pathway Paradox,” suggests different mechanisms may be involved in how content influences specific beliefs versus broader evaluative responses.

The analyses of content-type effects revealed several noteworthy patterns across content types. Physical content demonstrated the most versatile impact, enhancing ad effectiveness and influencing beliefs across domains. This suggests that concrete, tangible benefits may function as cognitive anchors, facilitating belief formation more broadly than expected. Psychological content showed limited persuasive impact, particularly when presented with character presence. Experience content demonstrated domain-specific strengths, particularly in facilitating affective forecasting, but without enhancing overall ad effectiveness.

[Insert Figure 2 here]

Figure 2 illustrates the differential effects of content types across outcome measures, highlighting the content-specific patterns observed. These findings challenge the universal assumptions of content-matching effects and suggest a more nuanced relationship between content type and persuasive outcomes in patient story content.

Identifiable Character Effects (H2). Hypotheses H2a-H2d predicted that character presence would enhance narrative engagement through four mediating variables: transportation, identification, similarity, and emotion. Table 8 presents the results of these tests.

[Insert Table 8 here]

Hypothesis H2a, which predicted that character presence would increase transportation, was supported ($\beta = 0.201$, SE = 0.052, $p < .001$, std. $\beta = 0.099$). The standardized coefficient suggests a small effect size, with character presence explaining approximately 1% of the variance in transportation. Hypothesis H2b, which predicted that character presence would increase identification, was marginally supported ($\beta = 0.119$, SE = 0.061, $p = .053$, std. $\beta = 0.049$). This borderline significant effect suggests character presence had a modest positive impact on identification, though the effect size was very small. Hypothesis H2c, which predicted that character presence would increase perceived similarity, was supported ($\beta = 0.203$, SE = 0.069, $p = .003$, std. $\beta = 0.084$). This significant positive effect indicates that including an identifiable character enhanced participants' perception of similarity with the character, though the effect size was small. Hypothesis H2d, which predicted that character presence would increase emotional response, was not supported ($\beta = 0.111$, SE = 0.064, $p = .082$, std. $\beta = 0.048$). This non-significant result suggests that character presence did not substantially enhance emotional responses to the stories.

Overall, these results indicate that character presence primarily influenced cognitive and perceptual aspects of narrative engagement (transportation and similarity) rather than emotional responses. All effect sizes were small (standardized coefficients < 0.10), suggesting that while statistically significant, the practical impact of character presence on these mediating variables was modest.

The effects of character presence reported above aggregate across content types. However, as will be seen in the interaction analyses (H5), these effects vary substantially

by content type, with neutral effects for physical outcome content, negative effects for psychological outcome content, and mixed effects for experience content.

Hypotheses H2e and H2f predicted that both character-present and character-absent conditions would have stronger effects on ad effectiveness compared to the control condition. Table 9 presents the results of these tests.

[Insert Table 9 here]

Hypothesis H2e, which predicted that character presence would have a direct positive effect on ad effectiveness, was not supported ($\beta = -0.004$, $SE = 0.038$, $p = .912$, $std.\beta = -0.003$). The coefficient was essentially zero, suggesting that the mere presence of characters did not directly influence overall advertising outcomes. Analysis of Hypothesis H2f, examining effects of character-absent conditions, showed varied results dependent on content type. When aggregated across content types, stories without identifiable characters did not show significant advantages over control. However, as noted in the analysis of H1h, physical outcome content with character absence showed significant positive effects on ad effectiveness compared to control ($b = 0.153$, $SE = 0.074$, $p = .038$, $\beta = 0.074$).

These findings reveal an important pattern: Although character presence enhanced aspects of narrative engagement (transportation, similarity, and marginally identification), these effects did not translate to improved ad effectiveness. The coefficient for the direct effect of character presence on ad effectiveness was virtually zero, indicating that including identifiable characters in patient story content may not directly enhance persuasive outcomes, despite increasing engagement.

[Insert Figure 3 here]

Figure 3 displays the effects of character presence on narrative engagement variables, illustrating the significant positive effects on transportation and similarity, and marginally significant effect on identification, contrasted with the non-significant effect on emotional response and ad effectiveness. This visualization highlights how character presence differentially affected various aspects of narrative processing.

Mediation Effects (H3-4). Hypotheses H3a and H3b predicted that transportation and identification would mediate the relationship between character presence and ad effectiveness. Table 10 presents the results of these mediation analyses.

[Insert Table 10 here]

For H3a, which predicted mediation through transportation, both the direct path from transportation to ad effectiveness and the indirect path from character presence through transportation to ad effectiveness were examined. The direct path from transportation to ad effectiveness was not significant ($\beta = 0.035$, SE = 0.042, $p = .404$, std. $\beta = 0.051$), indicating that transportation did not directly influence ad effectiveness. Consequently, the indirect effect of character presence on ad effectiveness through transportation was also not significant ($\beta = 0.007$, SE = 0.009, $p = .415$, std. $\beta = 0.005$). Thus, Hypothesis H3a was not supported.

For H3b, which predicted mediation through identification, the direct path from identification to ad effectiveness was significant ($\beta = 0.087$, SE = 0.035, $p = .014$, std. $\beta = 0.154$). This indicates that identification with characters was positively related to ad effectiveness. However, the indirect effect of character presence on ad effectiveness through identification was not significant ($\beta = 0.010$, SE = 0.007, $p = .151$, std. $\beta = 0.007$). Therefore, Hypothesis H3b was not supported.

These results reveal an important pattern: Although character presence significantly increased transportation (H2a) and marginally increased identification (H2b), and identification significantly influenced ad effectiveness, the indirect paths from character presence through these mediators to ad effectiveness were not significant. This suggests that although identification matters for ad effectiveness, character presence does not sufficiently enhance identification to produce meaningful indirect effects on persuasive outcomes. The stronger relationship between identification and ad effectiveness compared to transportation and ad effectiveness suggests identification primacy in the narrative persuasion process.

Hypothesis H4 predicted that psychological outcome content would affect attitude toward the brand through eudaimonic symbolism (perception of deeper meaning). Table 11 presents the results of this mediation analysis, which focused specifically on the psychological outcome content conditions.

[Insert Table 11 here]

The analysis revealed that character presence within psychological outcome content did not have a significant effect on eudaimonic symbolism (a path: $\beta = -0.005$, SE = 0.090, $p = .956$). However, eudaimonic symbolism had a significant positive effect on attitude toward the brand (b path: $\beta = 0.506$, SE = 0.085, $p < .001$). The direct effect of character presence on attitude toward the brand was not significant (c path: $\beta = -0.139$, SE = 0.108, $p = .199$). The indirect effect of character presence on attitude toward the brand through eudaimonic symbolism was not significant (a^*b : $\beta = -0.002$, SE = 0.045, $p = .956$). The proportion mediated was minimal at 0.018 (SE = 0.317, $p = .956$). Therefore, H4 was not supported.

These findings indicate that although eudaimonic symbolism strongly influences attitude toward the brand, psychological outcome content with character presence does not effectively trigger eudaimonic responses. This suggests an untapped potential pathway: If patient stories could more effectively evoke eudaimonic symbolism through means other than character presence, they might substantially enhance attitudes toward the brand.

[Insert Figure 4 here]

Figure 4 illustrates the mediating pathways tested in the models, showing standardized path coefficients and significance levels. The diagram highlights the significant path from identification to ad effectiveness, the significant path from eudaimonic symbolism to attitude toward the brand, and the non-significant indirect effects through all tested mediators. This visualization emphasizes that although narrative engagement variables such as identification and eudaimonic symbolism influence persuasive outcomes, character presence does not consistently enhance these mediators enough to produce significant indirect effects.

Interaction Effects (H5). Hypotheses H5a, H5b, and H5c predicted that for each content type, character presence would have stronger effects on the corresponding belief item compared to character absence and control. Table 12 presents the results of these tests.

[Insert Table 12 here]

Hypothesis H5a predicted that for physical outcome content, character presence would have stronger effects on physical beliefs (beliefs_1) compared to character absence and control. This hypothesis was not supported. The difference between physical

outcome content with character present versus character absent was not significant (difference = 0.118, SE = 0.094, $z = 1.255$, $p = .209$), nor was the difference between physical outcome content with character present versus control (difference = 0.049, SE = 0.097, $z = 0.504$, $p = .614$). These results suggest that for physical outcome content, character presence neither enhanced nor diminished effects on physical beliefs.

Hypothesis H5b predicted that for psychological outcome content, character presence would have stronger effects on psychological beliefs (beliefs_2) compared to character absence and control. This hypothesis was not supported. In fact, a contrary finding emerged: Psychological content with character present had significantly weaker effects on psychological beliefs compared to control (difference = -0.214, SE = 0.108, $z = -1.971$, $p = .049$). The difference between psychological outcome content with character present versus character absent was marginally significant in the negative direction (difference = -0.200, SE = 0.113, $z = -1.772$, $p = .076$). These results suggest that for psychological outcome content, character presence actually diminished effects on psychological beliefs, a pattern we term the “Critical Evaluation Hypothesis” as it suggests character presence may trigger heightened scrutiny rather than narrative engagement for abstract psychological claims.

Hypothesis H5c predicted that for experience content, character presence would have stronger effects on experience beliefs (beliefs_3) compared to character absence and control. This hypothesis was marginally supported for the comparison with character absence. Experience content with character present had marginally stronger effects on experience beliefs compared to experience content with character absent (difference = 0.192, SE = 0.115, $z = 1.676$, $p = .094$). However, the difference between experience

content with character present versus control was not significant (difference = -0.133, SE = 0.106, $z = -1.251$, $p = .211$). These results provide limited support for the enhancement effect of character presence for experience content.

Overall, these findings reveal content-specific patterns in how character presence affects specific beliefs. For physical outcome content, character presence had neutral effects. For psychological outcome content, character presence had negative effects. For experience content, character presence had marginally positive effects compared to character absence. This pattern contradicts the assumption that character presence uniformly enhances narrative effects across content types.

Hypothesis H5d predicted that for experience content, character presence would have stronger effects on affective forecasting compared to character absence. Table 13 presents the results of this test.

[Insert Table 13 here]

Contrary to expectations, the analysis revealed a significant negative effect in the opposite direction of the hypothesis (coefficient = -0.511, SE = 0.146, $t = -3.492$, $p < .001$). Experience content with character presence showed significantly lower forecasting scores ($M = 4.32$) compared to experience content with character absence ($M = 4.83$). Therefore, Hypothesis H5d was not supported, with a significant effect in the opposite direction of what was predicted.

This contrary finding is particularly noteworthy given that experience content had the strongest overall effects on forecasting (H1d). The negative effect of character presence on forecasting suggests that for experience-focused content, the absence of an identifiable character may actually enhance participants' ability to project their own

future emotional states. This “Blank Slate Hypothesis” suggests that character absence creates a projective space that facilitates mental simulation and self-projection, contradicting conventional assumptions about character presence uniformly enhancing narrative effects.

Hypotheses H5e, H5f, and H5g predicted that for each content type, character presence would have stronger effects on brand beliefs compared to character absence and control. Table 14 presents the results of these tests.

[Insert Table 14 here]

Hypothesis H5e predicted that for physical outcome content, character presence would have stronger effects on brand beliefs compared to character absence and control. This hypothesis was not supported. The difference between physical outcome content with character present versus character absent was not significant (difference = 0.061, SE = 0.091, $z = 0.675$, $p = .500$), nor was the difference between physical outcome content with character present versus control (difference = 0.067, SE = 0.093, $z = 0.724$, $p = .469$). These results align with the findings for H5a, indicating that for physical outcome content, character presence had neutral effects on both specific beliefs and brand beliefs.

Hypothesis H5f predicted that for psychological outcome content, character presence would have stronger effects on brand beliefs compared to character absence and control. This hypothesis was not supported. In fact, in line with the findings for H5b, a contrary finding emerged: Psychological content with character present had significantly negative effects on brand beliefs compared to control (difference = -0.204, SE = 0.102, $z = -1.991$, $p = .046$). The difference between psychological outcome content with character present versus character absent was not significant, though it trended in the

negative direction (difference = -0.167, SE = 0.106, z = -1.571, p = .116). These results reinforce the pattern observed for psychological outcome content in which character presence consistently diminished effectiveness, providing further support for the Critical Evaluation Hypothesis.

Hypothesis H5g predicted that for experience content, character presence would have stronger effects on brand beliefs compared to character absence and control. This hypothesis was partially supported. Experience content with character present had significantly stronger effects on brand beliefs compared to experience content with character absent (difference = 0.218, SE = 0.103, z = 2.122, p = .034). However, the difference between experience content with character present versus control was not significant (difference = -0.060, SE = 0.096, z = -0.620, p = .535). This partial support for H5g aligns with the marginal support found for H5c, suggesting consistent benefits of character presence for experience content on belief-related outcomes.

These findings further support the content-specific patterns observed in the previous analyses. Character presence had neutral effects for physical outcome content, negative effects for psychological outcome content, and positive effects for experience content (relative to character absence). The variance explained by these interaction effects was small (R^2 ranging from 0.0011 to 0.0139), but the consistent patterns across outcome measures suggest these are meaningful, content-specific effects rather than statistical artifacts.

The interaction analyses revealed consistent content-specific patterns in how character presence affected outcomes. For physical outcome content, character presence had neutral effects, neither enhancing nor diminishing persuasiveness. For psychological

outcome content, character presence consistently diminished effectiveness, producing significant negative effects on both psychological beliefs and brand beliefs compared to control. For experience content, character presence showed mixed effects, enhancing brand beliefs compared to character absence while diminishing forecasting.

These content-specific patterns challenge the assumption that character presence uniformly enhances narrative effects. Instead, they suggest that the effects of character presence are fundamentally moderated by content type. Most notably, the negative effects of character presence for psychological outcome content were observed consistently across multiple outcome measures, supporting the Critical Evaluation Hypothesis. The contrasting effects of character presence on brand beliefs versus forecasting for experience content are particularly intriguing. Although character presence enhanced brand beliefs relative to character absence, it significantly diminished forecasting. This suggests that different processing routes may operate for different outcomes even within the same content type. For forecasting specifically, the absence of an identifiable character may create a “blank slate” that facilitates self-projection into future emotional states.

Summary of Key Findings. The Study 1 analyses revealed several important patterns across hypothesis tests that collectively challenge conventional assumptions about narrative persuasion in healthcare contexts.

Content Type Effects. Physical content demonstrated the most consistent positive effects across outcome measures. It was the only content type to enhance ad effectiveness compared to control (H1h), and it showed content-specific advantages on physical beliefs as hypothesized (H1a). Unexpectedly, physical outcome content also showed stronger

effects than psychological outcome content on psychological beliefs (contrary to H1b) and stronger effects than experience content on experience beliefs (contrary to H1c). This pattern suggests that physical outcome content may have broader persuasive impact in healthcare contexts than previously assumed. Experience content showed particular strength in facilitating affective forecasting, significantly outperforming both physical and psychological outcome content on this outcome (H1d). This finding highlights the unique value of experience-focused content for helping consumers anticipate future emotional states, which is particularly important in healthcare decision-making. Psychological content showed the least consistent effects across outcomes. It did not significantly enhance ad effectiveness compared to control (H1i), nor did it show the hypothesized content-matching effects on psychological beliefs (H1b).

Identifiable Character Effects. Character presence significantly enhanced transportation (H2a) and perceived similarity (H2c), and marginally enhanced identification (H2b), but did not significantly affect emotional responses (H2d). Despite enhancing aspects of narrative engagement, character presence did not directly enhance ad effectiveness (H2e). The direct effect of character presence on ad effectiveness was essentially zero ($\beta = -0.003$), suggesting that including identifiable characters in patient stories may not directly improve persuasive outcomes.

Mediation Pathways. None of the hypothesized mediation pathways were statistically significant. Transportation did not mediate the effect of character presence on ad effectiveness (H3a), nor did identification (H3b), despite identification having a significant direct effect on ad effectiveness. Similarly, eudaimonic symbolism did not mediate the effect of psychological outcome content on brand attitudes (H4), despite

eudaimonic symbolism having a strong direct effect on brand attitudes. This pattern suggests that while variables like identification and eudaimonic symbolism significantly influence persuasive outcomes, character presence and content type manipulations do not consistently enhance these mediators enough to produce significant indirect effects.

Content-Specific Character Effects. The most striking pattern emerged in the interaction analyses, which revealed content-specific patterns in how character presence affected outcomes:

- **Physical Content:** Character presence had neutral effects, neither enhancing nor diminishing persuasiveness (H5a, H5e).
- **Psychological Content:** Character presence consistently diminished effectiveness, producing significant negative effects on both psychological beliefs and brand beliefs compared to control (H5b, H5f).
- **Experience Content:** Character presence showed mixed effects, enhancing brand beliefs compared to character absence (H5g) while diminishing forecasting (H5d).

These content-specific patterns challenge the assumption that character presence uniformly enhances narrative effects. Instead, they suggest that the effects of character presence are fundamentally moderated by content type.

Unexpected Findings. Several findings contradicted initial hypotheses:

- The consistent negative effects of character presence for psychological outcome content were observed across multiple outcome measures, suggesting a robust pattern rather than a statistical anomaly.

- For experience content, character absence significantly enhanced forecasting compared to character presence (H5d), despite experience content having the strongest overall effects on forecasting (H1d).
- Content-matching effects were observed only for physical outcome content (H1a), not for psychological or experience content (H1b, H1c).
- Several experimental conditions showed negative effects on brand beliefs compared to control (H1e-H1g), despite some of the same conditions showing positive effects on ad effectiveness (H1h).

Effect Size Considerations. Effect sizes for most significant findings were small, with standardized coefficients typically below 0.10 and R² values below 0.05. The largest effect sizes were observed for experience content effects on forecasting and eudaimonic symbolism effects on brand attitudes. Despite small effect sizes, the consistent patterns observed across analyses, particularly in the interaction effects, suggest these are meaningful effects that reveal important insights about how narrative persuasion operates in healthcare contexts.

Collectively, these findings point toward a content-moderated model of patient story persuasion, which will be further developed in the Discussion section.

Discussion

The findings from Study 1 reveal a complex picture of patient story content persuasion, with content type fundamentally moderating the effects of character presence. By addressing this dissertation's central question of how carefully crafted stories influence vulnerable healthcare consumers, this study provides crucial insights into how patient story content shapes consumer decision making. Study 1 deliberately

deconstructed patient stories into their component content types to understand how each functions in isolation—a necessary analytical step before examining how they operate in combination. This deconstruction approach directly supports this dissertation’s purpose of understanding how intrinsic features of cancer patient stories influence consumer perceptions and decision making, while establishing the foundation for examining how these components operate when combined in Study 2. Understanding content type effects provides essential information for predicting how these elements function when combined in complete stories (Shaffer et al., 2018a).

In the context of healthcare services as credence goods, where consumers struggle to evaluate quality even after consumption (Angerer et al., 2023; Schenker et al., 2014), these findings have particular significance. Cancer patients face life-altering decisions based on limited information, making narrative evidence especially influential in their decision processes (Berry et al., 2020). Study 1 identified distinct patterns of effectiveness for each content type when presented alone: positive effects for physical outcome content (especially on ad effectiveness), content-conditional effects for psychological outcome content (negative when paired with character presence), and mixed effects for experience content (positive for brand beliefs but negative for affective forecasting when paired with character presence). Physical outcome content dominated across belief measures, contradicting content-matching expectations by increasing brand meaning and brand experience beliefs in addition to brand effectiveness belief. Character presence significantly enhanced brand beliefs for experience content but simultaneously decreased affective forecasting, suggesting competing processes at work. Transportation and identification, though enhanced by character presence, failed to consistently mediate

effects on persuasion outcomes. These complex patterns suggest that component content types operate through distinct processing routes, challenging universal assumptions about how story elements function. This experimental evidence addresses the patterns previously identified in content analyses, where academic health centers routinely present exceptional rather than typical patient experiences in patient story advertising (Berry et al., 2020; McLeod, 2022, 2023).

Study 1 findings support a Content-Moderated Dual-Process Model (CMDPM) that integrates content-focused and structure-focused approaches to narrative persuasion. This model positions content type as the primary moderator that determines which processing mechanisms are activated and how other story elements such as character presence function when content types are presented in isolation. The findings demonstrate support for the Narrative Immersion Model's (NIM; Shaffer et al., 2018a) emphasis on content type as a critical determinant of narrative effects, while revealing how these content-specific processes interact with identifiable character, a structural element emphasized in the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014). While this dissertation's initial theoretical framework addresses variables in the context of complete patient stories that integrate multiple content types with structural elements of character and plot, the component-level CMDPM provides necessary building blocks for understanding how these elements might function when combined. Both models recognize that existing theory that consider only content or only structure do not fully explain how content, character, and plot elements work together in patient stories. This content-conditional effect directly addresses a theoretical gap identified in the literature, as neither model alone fully explains how content, character, and plot

elements work together to shape consumer response (Shaffer et al., 2018a; van Laer et al., 2014).

Study 1 findings collectively point toward a model in which isolated content types operate through three distinct processing routes. The first processing route, termed the Observational Route, involves transportation and identification processes where consumers engage with the story through the lens of an identifiable character. This route was enhanced by character presence, particularly for experience content. The evidence for this route comes from the significant positive effect of character presence on transportation ($\beta = 0.201$, $p < .001$) and similarity ($\beta = 0.203$, $p = .003$), and the significant enhancement of brand beliefs by character presence for experience content ($\beta = 0.218$, $p = .034$). The Observational Route findings align with Green and Brock's (2000, 2002) transportation theory, which emphasizes how narrative immersion reduces counterarguing and enhances story-consistent beliefs. However, findings suggest that transportation operates selectively based on content type rather than uniformly. In fact, Study 1 findings challenge existing narrative engagement hierarchies by revealing identification primacy in the persuasion process, as identification significantly affected ad effectiveness ($\beta = 0.087$, $p = .014$) while transportation did not ($\beta = 0.035$, $p = .404$). This pattern contradicts the traditional emphasis on transportation in narrative persuasion theory and aligns more closely with Cohen's (2001, 2017) argument that identification enables deeper perspective-taking that significantly influences attitudes and behaviors.

The second processing route, termed the Simulation Route, involves mental simulation and self-referential processing where consumers project themselves into future scenarios. This route was inhibited rather than enhanced by character presence, as

evidenced by the significant negative effect of character presence on affective forecasting for experience content ($\beta = -0.511$, $p = .001$). Despite experience content having the strongest overall effects on affective forecasting compared to other content types (H1d supported), character presence within experience content significantly decreased this effect. This pattern suggests that the absence of an identifiable character creates a “blank slate” that facilitates self-projection into future emotional states, as explained by the Blank Slate Hypothesis. The Simulation Route connects directly to Wilson and Gilbert’s (2003, 2005) research on affective forecasting, which demonstrates how people often misjudge future emotional states. The finding that character absence enhances forecasting extends their work on impact bias---the tendency to overestimate both the intensity and duration of emotional responses to medical procedures---by suggesting that stories without identifiable characters may help consumers more accurately project their emotional trajectories during healthcare experiences. This effect is likely amplified by the third-person perspective used in the stories, which, without character presence, allows consumers greater flexibility in mental simulation.

The third processing route, termed the Analytical Route, involves critical evaluation and evidence assessment where consumers scrutinize the claims being made. This route appeared particularly relevant for psychological outcome content, where character presence triggered skepticism rather than engagement. The evidence for this route comes from the consistent negative effects of character presence for psychological outcome content, including significant negative effects on psychological beliefs ($\beta = -0.214$, $p = .049$) and brand beliefs ($\beta = -0.204$, $p = .046$) compared to control. These findings contradict expectations that psychological outcome content with character

presence would enhance persuasion through narrative engagement. Instead, they support the Critical Evaluation Hypothesis, which posits that character presence may serve as a cognitive trigger, prompting consumers to engage in more effortful, analytical processing—particularly for complex or sensitive topics such as psychological outcomes of a healthcare experience. These results challenge Zillmann's (1999, 2006) exemplification theory, which predicts that concrete examples, or exemplars, shape beliefs about broader phenomena through cognitive and emotional processes that enhance rather than diminish persuasion. The Analytical Route focuses on logical, evaluative processing and appears associated with evidence-based belief formation rather than narrative engagement. This route challenges fundamental assumptions in narrative persuasion theory that suggest characters enhance persuasion across content domains (van Laer et al., 2014).

Content type serves as the primary moderator determining which processing routes are activated and how they function when content types are presented in isolation. This finding that content type moderates processing routes both extends and challenges existing narrative frameworks. Shaffer et al.'s (2018a) NIM correctly identifies content type as a critical determinant of narrative effects and acknowledges that character effects can vary based on cognitive and emotional processing demands. Study 1 findings extend this by empirically demonstrating specific content-conditional patterns where character presence can both enhance and diminish persuasion depending on content type. These findings challenge van Laer et al.'s (2014) ETIM, which positions identifiable characters as universal enhancers of transportation. The Study 1 synthesis of content-focused and

structure-focused approaches provides a more comprehensive theoretical framework for understanding patient story content and character interactions.

Physical outcome content activated complementary observational and analytical routes, allowing for both narrative engagement and evidence assessment. The concrete nature of physical claims appeared to make them amenable to both processing routes, explaining physical outcome content's broad persuasive influence across outcomes and the neutral effects of character presence. This also aligns with evidence that practitioners prioritize physical outcomes content over other types (McLeod, 2022, 2023; Willett, 2024). Physical outcome content was the only content type to enhance ad effectiveness compared to control ($\beta = 0.196$, $p = .006$ with character; $\beta = 0.153$, $p = .038$ without character) and showed the expected stronger effect on its corresponding belief item (H1a supported). It also, surprisingly, had stronger effects than psychological outcome content on brand meaning belief ($\beta = -0.174$, $p = .022$) and stronger effects than experience content on brand experience belief ($\beta = -0.323$, $p < .001$). This broad persuasive impact suggests that concrete, tangible physical outcomes serve as cognitive anchors that facilitate belief formation across domains rather than only in matched domains, an insight that may inform how physical content functions when combined with other content types in complete patient stories. This broad persuasive impact suggests that concrete, tangible physical outcomes serve as cognitive anchors that facilitate belief formation across domains rather than only in matched domains. This finding is consistent with Shaffer and Zikmund-Fisher's (2013) prediction that outcome content influences effectiveness perceptions, and it extends Shaffer et al.'s (2018a) NIM by revealing physical outcome content's cross-domain influence on beliefs beyond its matched domain.

Psychological outcome content primarily activated the analytical route when presented in isolation, with character presence disrupting rather than enhancing persuasion by triggering heightened scrutiny. The abstract nature of psychological claims appeared to make character testimonials particularly vulnerable to critical evaluation, explaining the consistent negative effects of character presence for psychological outcome content across outcome measures. This pattern contradicts Kim et al.'s (2012) research on exemplars, which suggests that specific examples should enhance rather than diminish persuasion. It also challenges findings from Hamby et al. (2023), who demonstrated that stories containing eudaimonic themes about life purpose and meaning—like those used in the psychological outcome content—typically enhance attitudes toward brands associated with those stories. Our results indicate that when these eudaimonic themes are presented through identifiable characters, they may trigger skepticism rather than the symbolic meaning transfer process that Hamby et al. (2023) identified. Psychological content failed to show the hypothesized content-matching effects on psychological beliefs (H1b not supported) and did not significantly enhance ad effectiveness compared to control (H1i not supported). These findings empirically validate Shaffer et al.'s (2018a) theoretical proposition that different types of outcome content might have different effects, demonstrating that psychological outcome content generates distinct response patterns compared to physical outcome content. The absence of belief effects for psychological outcome content suggests these abstract outcomes may be less tangible or immediate than physical outcomes. The findings indicate that for abstract psychological claims, evidence-based presentation may be more effective than character-driven storytelling when this content type is presented alone.

Experience content activated competing observational and simulation routes when presented in isolation, with character presence enhancing the former but inhibiting the latter. This explains the mixed effects of character presence for experience content—enhancing brand beliefs ($\beta = 0.218$, $p = .034$) while diminishing affective forecasting ($\beta = -0.511$, $p = .001$). Experience content showed particular strength in facilitating affective forecasting (H1d supported). This is an expected finding because research shows that experience content reduces affective forecasting errors by providing vivid and relatable accounts of healthcare experiences (Shaffer et al., 2013, 2016). However, experience content failed to show the hypothesized content-matching effects on experience beliefs (H1c not supported) and did not significantly enhance ad effectiveness compared to control (H1j not supported). These mixed patterns suggest that experience content functions through distinct mechanisms depending on the specific outcome being targeted. The competing nature of these mechanisms creates fundamentally different character presence recommendations depending on whether brand beliefs or affective forecasting is the primary communication goal when experience content appears in isolation.

The Content-Moderated Dual-Process Model (CMDPM) proposes fundamental trade-offs between processing routes, particularly for isolated experience content. Character presence enhances the observational route (improving identification and beliefs) but inhibits the simulation route (diminishing forecasting and self-projection). This explains the paradoxical finding that character presence enhanced brand beliefs for experience content while simultaneously decreasing affective forecasting. The model also identifies content-route compatibility patterns for isolated content types: physical outcome content works effectively with both observational and analytical routes;

psychological outcome content works primarily through the analytical route; and experience content activates both observational and simulation routes, but with competing effects based on character presence. These compatibility patterns suggest that patient story design should consider how these component content types might function when combined in complete stories, with specific communication goals guiding content selection and character presence decisions.

The small effect sizes observed in the analyses (typically $R^2 < 0.05$) suggest that content type and character presence should be viewed as optimization factors rather than transformative elements, requiring strategic application based on specific persuasion objectives. These small effect sizes are consistent with broader narrative persuasion research. Meta-analyses by Braddock and Dillard (2016) and Shen et al. (2015) show modest but consistent effects of stories on persuasion outcomes. These effects take on added significance in healthcare contexts, where vulnerable consumers may be particularly susceptible to influence when making consequential treatment decisions with limited ability to evaluate options independently (Angerer et al., 2023; Berry et al., 2020; Schenker et al., 2014). In cancer care specifically, where academic health centers routinely use patient stories to shape decisions of highly vulnerable consumers facing life-altering treatment choices, even modest improvements in how stories support informed decision making could have meaningful impacts on consumer wellbeing.

Although the CMDPM explains how content types function in isolation, these insights provide a foundation for understanding how they might operate when integrated in patient stories that combine physical outcome, psychological outcome, and experience content—the focus of Study 2. By examining how character presence functions

differently across isolated content types, Study 1 lays the groundwork for understanding how character presence might function in complete patient stories that integrate multiple content types—preparing for the examination of imaginable plot in Study 2. However, it is important to note that these findings must be validated in Study 2, as the stories used in Study 1 were incomplete and short (125-141 words), whereas Study 2 stimuli are complete stories including all content types and nearly five times longer (658-690 words).

Theoretical Implications

The Content-Moderated Dual-Process Model (CMDPM) advances theoretical understanding by integrating content-focused and structure-focused approaches to narrative persuasion. Study 1 findings demonstrate support for the Narrative Immersion Model's (NIM; Shaffer et al., 2018a) emphasis on content type as a critical determinant of narrative effects, while revealing how these content-specific processes interact with identifiable character, a structural element emphasized in the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014). While ETIM positions identifiable character, imaginable plot, and verisimilitude as universal enhancers of transportation, Study 1 findings reveal that content type fundamentally moderates how these elements function. This content-conditional effect directly addresses a theoretical gap identified in the literature, as neither model alone fully explains how content, character, and plot elements work together to shape consumer response (Bigsby et al., 2019; Schreiner et al., 2018; Shaffer et al., 2018a). The findings demonstrate that understanding isolated content effects provides essential building blocks for predicting how these elements function when combined in complete stories (Shaffer et al., 2018a), advancing this dissertation's

broader goal of developing a comprehensive theoretical framework for patient story advertising.

Narrative Engagement Mechanisms and Identification Primacy. Study 1 findings challenge existing narrative engagement hierarchies by revealing identification primacy in the persuasion process. The Narrative Immersion Model (NIM) proposed by Shaffer et al. (2018a) conceptualizes narrative engagement as a hierarchical process involving progressive levels—interest, involvement (represented by identification), and immersion (represented by transportation). This progression suggests that transportation should serve as the ultimate mechanism for narrative persuasion. However, Study 1 findings show that while character presence enhanced transportation ($\beta = 0.201$, $p < .001$) and only marginally enhanced identification ($\beta = 0.119$, $p = .053$), identification significantly affected ad effectiveness ($\beta = 0.087$, $p = .014$) while transportation did not ($\beta = 0.035$, $p = .404$). This finding supports the distinction between transportation and identification as conceptually separate constructs that can function independently, as proposed by Tal-Or & Cohen (2010) and Green (2021). Moreover, this finding extends recent meta-analytic evidence showing that while transportation is consistently identified as a mechanism for persuasion in stories (compared to non-narrative formats), understanding exactly how stories work requires examining multiple theoretical mechanisms simultaneously (Sun et al., 2024). While transportation and identification are often correlated, they do not necessarily co-occur—consumers may identify with a character without experiencing full immersion in the story world (Cohen & Klimmt, 2021; Green, 2006), which may explain the differential effects observed in this study.

The identification primacy finding has particular significance for vulnerable healthcare consumers, who often overestimate potential treatment benefits, making them especially susceptible to character portrayals that emphasize triumph over adversity (Berry et al., 2020). This revised hierarchy suggests that the strategic use of identifiable characters in patient story content may exert disproportionate influence through identification processes rather than through transportation, aligning with exemplification theory's prediction that compelling patient characters can shape consumer beliefs and opinions through emotional engagement (Bigsby et al., 2019; Zillmann, 1999, 2006).

However, this finding must be validated in Study 2. The stories used in Study 1 were incomplete and short (125-141 words), whereas Study 2 stimuli are complete stories including all content types and nearly five times longer (658-690 words).

Selective Content-Matching and Cognitive Anchoring. The selective content-matching pattern observed in Study 1 challenges assumptions about how content influences beliefs. Content-matching effects were observed only for physical outcome content (H1a supported), not for psychological outcome content (H1b not supported) or experience content (H1c not supported). Physical outcome content showed unexpected dominance across belief measures, with stronger effects than psychological outcome content on psychological beliefs ($\beta = -0.174$, $p = .022$) and stronger effects than experience content on experience beliefs ($\beta = -0.323$, $p < .001$). The observed effect of physical outcome content on brand effectiveness belief (H1a supported) is consistent with theory that predicts outcome content influences perceptions of effectiveness and risk (Shaffer & Zikmund-Fisher, 2013; Shaffer et al., 2018a). As expected, physical outcome content heightened perceptions of brand effectiveness by making the associated outcomes

more salient. Although Shaffer and Zikmund-Fisher (2013) did not distinguish between physical and psychological outcome content, Shaffer et al.'s (2018a) Narrative Immersion Model (NIM) suggested that different types of outcome content might have different effects. Study 1 extended the NIM (Shaffer et al., 2018a) by empirically distinguishing between physical and psychological outcome content, demonstrating differential effects on brand beliefs. The absence of belief effects for psychological outcome content suggests that psychological outcomes may be less tangible or immediate than physical outcomes, making them less influential in shaping brand beliefs. Finally, the lack of support for the predicted effect of experience content on brand experience belief (H1c not supported) is consistent with theory that predicts experience content primarily enhances confidence in decision-making and affective forecasting (Shaffer & Zikmund-Fisher, 2013; Shaffer et al., 2018a). Study 1 found that experience content did increase affective forecasting (H1d supported). This suggests that while experience content may improve engagement and subjective understanding, it may not strongly shape brand beliefs.

Thus, Study 1 findings support and extend the NIM (Shaffer et al., 2018a) in three ways. First, the findings confirm that outcome content does not have uniform effects. This suggests the study of patient story content should distinguish between physical outcome content and psychological outcome content. Second, the findings support and extend the prediction that content about physical outcomes influences brand effectiveness beliefs. Study 1 findings showed that physical outcome content had positive effects on all three types of brand beliefs (effectiveness, meaning, and experience). This suggests that concrete physical outcome content functions as a cognitive anchor that facilitates belief

formation across domains, consistent with exemplification theory's emphasis on the disproportionate influence of concrete, vivid examples on broader perceptions (Zillmann, 2006). This aligns with content analyses showing that healthcare brands disproportionately feature physical outcomes in patient stories (McLeod, 2022), suggesting that practitioners may intuitively prioritize physical content because of its stronger persuasive effects on consumer perceptions. Third, Study 1 findings confirm that experience content influences affective forecasting without necessarily influencing belief formation. For theoretical models of narrative persuasion, these findings indicate that content concreteness may be a more important determinant of belief formation than content domain matching, particularly in healthcare contexts where consumers struggle to evaluate quality independently (Angerer et al., 2023; Schenker et al., 2014).

Content-Conditional Character Effects. Character presence effects in Study 1 fundamentally challenge assumptions that characters always enhance narrative engagement and persuasion. Study 1 revealed content-conditional effects inconsistent with the Enhanced Transportation-Imagery Model's proposition that identifiable characters uniformly enhance narrative engagement (van Laer et al., 2014): neutral effects for physical outcome content, negative effects for psychological outcome content, and mixed effects for experience content. While the Enhanced Transportation Imagery Model (ETIM) posits that identifiable characters consistently enhance narrative engagement (van Laer et al., 2014), the Narrative Immersion Model (NIM) offers a more flexible perspective, suggesting that character effects depend on cognitive and emotional processing demands, leading to both immersive and scrutinizing responses (Shaffer et al., 2018a). The current findings align more closely with NIM, as character presence did not

uniformly enhance engagement but instead produced content-specific effects. Specifically, the NIM highlights that while similarity between audience members and characters can foster engagement, it can also increase cognitive scrutiny—an effect that may explain the observed lack of effects when characters were present in psychological outcome content.

For psychological outcome content, character presence significantly decreased brand meaning belief ($\beta = -0.214$, $p = .049$) and overall brand beliefs ($\beta = -0.204$, $p = .046$) compared to control. These findings directly contradict exemplification theory's prediction that exemplars shape beliefs through cognitive and emotional processes that enhance rather than diminish persuasion (Zillmann, 1999, 2006). However, the findings support the Critical Evaluation Hypothesis, which posits that character presence may serve as a cognitive trigger, prompting consumers to engage in more effortful, analytical processing—particularly for complex or sensitive topics such as psychological health outcomes. When presented with identifiable characters in psychological outcome content, consumers may shift from experiential engagement to a more critical evaluation of message credibility and realism, leading to reduced persuasion. In line with this, Shaffer et al. (2018a) suggest that when audiences encounter highly relatable characters, they may critically evaluate the message rather than passively accept it, especially if the narrative lacks strong supporting arguments or conflicts with prior beliefs.

Similarly, character presence significantly decreased affective forecasting for experience content ($\beta = -0.511$, $p = .001$) despite enhancing brand beliefs ($\beta = 0.218$, $p = .034$). This pattern suggests a divergence in how consumers process different types of information: while identifiable characters may enhance perceived brand credibility by

offering concrete exemplification, they may simultaneously limit engagement in self-referential simulation, reducing affective forecasting. Rather than mentally placing themselves in the scenario, participants may anchor their interpretation to the character's experience, which narrows rather than expands personal projection of future experiences. While character presence may have increased perceived brand credibility through exemplification, it may have simultaneously constrained affective forecasting by anchoring consumer interpretation to the character's specific experience, rather than allowing for flexible self-referencing. The Blank Slate Hypothesis explains this by suggesting that the presence of a character may constrain consumers' ability to mentally simulate their own experiences by providing a predefined interpretive framework. This aligns with Shaffer et al.'s (2018a) findings that while identifiable characters enhance trust and message encoding, they may also reduce openness to alternative interpretations.

The third-person perspective of the stories in this study likely reinforced these effects by positioning consumers as external observers rather than direct participants. For psychological outcome content, this narrative distance may have encouraged greater critical scrutiny of message claims, amplifying the effects described in the Critical Evaluation Hypothesis. In contrast, for experience content, third-person framing may have reduced self-referential simulation, as consumers were less likely to engage in personal affective forecasting and more likely to anchor their interpretation to the character's specific experience, as predicted by the Blank Slate Hypothesis. This perspective may have led participants to evaluate the psychological outcome content more analytically, heightening scrutiny of message claims, as explained by the Critical Evaluation Hypothesis. Similarly, for experience content, the third-person framing may

have constrained participants' ability to engage in affective forecasting by anchoring them to the character's specific experience rather than allowing for self-referential simulation, in line with the Blank Slate Hypothesis.

Taken together, these content-specific patterns extend narrative theory by identifying boundary conditions where character presence diminishes rather than enhances persuasion. This insight is particularly significant given healthcare brands' strategic use of patient exemplars to influence vulnerable consumers (Martel et al., 2022; McLeod, 2023). The findings support a more nuanced view of character effects in narrative persuasion, challenging the assumption that identifiable characters always enhance engagement and persuasion (van Laer et al., 2014) and reinforcing Shaffer et al.'s (2018a) argument that character-driven story content can trigger both immersive and scrutinizing responses depending on content type and consumer perceptions.

By introducing the Critical Evaluation Hypothesis and the Blank Slate Hypothesis, this study refines narrative persuasion theory by demonstrating that character presence can simultaneously enhance cognitive scrutiny and limit self-referential engagement, depending on content type. These findings challenge the prevailing assumption that identifiable characters uniformly enhance engagement and persuasion (van Laer et al., 2014), instead highlighting the dual role of character presence in triggering both immersive and analytical responses. This perspective integrates and extends van Laer et al.'s (2014) ETIM and Shaffer et al.'s (2018a) NIM, offering a more precise framework for understanding when and why character-driven story content amplifies or constrains narrative persuasion.

Content-Specific Processing Routes. Study 1 findings revealed that different content types activate distinct processing routes when presented in isolation, providing essential component-level insights that inform understanding of complete patient stories. These patterns validate the Content-Moderated Dual-Process Model (CMDPM) premise that content type fundamentally determines how story elements function in persuasion.

Physical outcome content demonstrated remarkable persuasive versatility, functioning as a cognitive anchor that enhanced beliefs across domains rather than only in its matched domain. This effect aligns with the identification primacy finding, as physical outcomes provide concrete elements that facilitate identification with character experiences, which then drives persuasion more effectively than transportation alone. This finding extends Zillmann's (2006) exemplification theory by showing that concrete examples provide cognitive foundations that facilitate belief formation more broadly than abstract or experiential claims. As demonstrated in the selective content-matching analysis, physical outcome content showed unexpected dominance across all belief measures, functioning as a cognitive anchor that facilitates belief formation across domains. The concrete nature of physical outcomes (e.g., tumor reduction, symptom improvement) appeared to provide accessible evidence of healthcare brand quality that bridged both narrative and analytical processing routes, explaining why physical outcome content was the only content type to consistently improve overall ad effectiveness compared to control.

Psychological outcome content activated primarily analytical routes with heightened scrutiny when presented through character testimonials. This pattern, explained by the Critical Evaluation Hypothesis, aligns with research on credence goods

showing that consumers struggle to independently evaluate psychological claims because of their subjective and intangible nature (Angerer et al., 2023; Schenker et al., 2014). The Critical Evaluation Hypothesis directly contradicts exemplification theory's prediction that exemplars enhance rather than diminish persuasion (Zillmann, 1999, 2006). Instead, for abstract psychological claims (e.g., emotional wellbeing, life perspective changes), character presence triggered heightened scrutiny and skepticism rather than transportation or identification. This finding explains content analyses showing that effective patient stories typically combine psychological outcomes with concrete physical outcomes that provide objective verification (McLeod, 2022, 2023).

Experience content uniquely activated competing observational and simulation routes, creating a fundamental trade-off in how character presence functioned. The finding that experience content simultaneously triggered different levels of narrative engagement extends Shaffer et al.'s (2018a) Narrative Immersion Model (NIM) by demonstrating that the same content can activate distinct processing pathways. While character presence enhanced brand beliefs for experience content, it significantly decreased affective forecasting ability compared to character absence. The Blank Slate Hypothesis explains this pattern by suggesting that the absence of an identifiable character creates a projective space that facilitates mental simulation and self-projection into future emotional states. This effect is likely amplified by the third-person perspective used in the stories, which, without character presence, allows consumers greater flexibility in mental simulation compared to when they must anchor their interpretation to a specific character's experience. This finding extends Wilson and Gilbert's (2003, 2005) affective forecasting research by identifying a specific narrative mechanism that

influences forecasting accuracy. However, as noted earlier, these processing route findings must be validated in Study 2 using complete stories that integrate multiple content types, as the isolated content effects observed in Study 1 may function differently in complete stories with all content types.

The Content-Moderated Dual-Process Model (CMDPM) proposes fundamental trade-offs between processing routes, particularly for isolated experience content. Character presence enhances the observational route (improving identification and beliefs) but inhibits the simulation route (diminishing forecasting and self-projection). This explains the paradoxical finding that character presence enhanced brand beliefs for experience content while simultaneously decreasing affective forecasting. The model also identifies content-route compatibility patterns for isolated content types: physical outcome content works effectively with both observational and analytical routes; psychological outcome content works primarily through the analytical route; and experience content activates both observational and simulation routes, but with competing effects based on character presence. These compatibility patterns suggest that patient story design should consider how these component content types might function when combined in complete stories, with specific communication goals guiding content selection and character presence decisions.

Mediation and Route-Specific Processing. The relationship between narrative engagement and persuasive outcomes revealed in Study 1 refines understanding of how stories influence consumer decision making in healthcare contexts. Despite character presence enhancing transportation ($\beta = 0.201$, $p < .001$) and marginally enhancing identification ($\beta = 0.119$, $p = .053$), the indirect effects on ad effectiveness through these

mediators were not significant (indirect effect through transportation: $\beta = 0.007$, $p = .415$; through identification: $\beta = 0.010$, $p = .151$). This discrepancy contradicts the traditional persuasion pathway outlined in narrative persuasion theories (Green & Brock, 2000; van Laer et al., 2014), which suggest that enhanced narrative engagement consistently leads to enhanced persuasion. Instead, Study 1 findings align more closely with recent meta-analyses showing that while character-recipient similarity significantly influences identification ($d = 0.14$), it has limited direct effects on transportation ($d = 0.13$) or resistance reduction ($d = -0.10$) (Chen et al., 2023).

The Content-Moderated Dual-Process Model addresses this discrepancy by proposing route-dependent persuasion processes: identification appears more central to the observational route, which supports the identification primacy finding where identification significantly affected ad effectiveness ($\beta = 0.087$, $p = .014$) while transportation did not ($\beta = 0.035$, $p = .404$); self-referential processing dominates the simulation route, as demonstrated by the Blank Slate Hypothesis where character absence facilitated affective forecasting for experience content; and evidence assessment characterizes the analytical route, exemplified by the Critical Evaluation Hypothesis where character presence triggered heightened scrutiny for psychological outcome content. This route-specific approach integrates narrative theories with dual-process persuasion models, advancing beyond both the NIM's emphasis on content types (Shaffer et al., 2018a) and ETIM's focus on structure (van Laer et al., 2014) to provide a more comprehensive explanation of how isolated content types influence consumer response through distinct processing routes.

Component Integration Implications. The component-level insights from Study 1 collectively suggest important theoretical considerations for how content types might function when integrated in complete patient stories. Rather than simply combining components additively, the findings indicate potential interactions and dependencies between content types that may influence their collective effectiveness. This perspective extends both the NIM's content-focused approach (Shaffer et al., 2018a) and ETIM's structure-focused approach (van Laer et al., 2014) by suggesting that content interactions fundamentally shape how structural elements function in patient stories.

Physical outcome content's concrete anchoring effect, which enhanced beliefs across all domains rather than just its matched domain, suggests it may enhance the credibility of psychological outcome content when they appear together, potentially mitigating the skepticism that psychological content triggered in isolation. This interaction aligns with Berry et al.'s (2020) observation that healthcare brands routinely combine concrete outcomes with transformative experiences to simultaneously demonstrate quality and create emotional resonance with consumers.

These component interactions suggest potential organizing principles for complete patient stories that strategically sequence and integrate content types. Beginning with concrete physical outcomes might establish what Park et al. (2023) describe as "evidence of treatment effectiveness" that enhances receptivity to subsequent psychological content addressing "patient satisfaction" dimensions of healthcare brand quality. Character presence might be strategically varied across different content sections to optimize both observational learning and simulation processes, with third-person perspective potentially influencing how consumers process different content types. This

approach aligns with McLeod's (2022, 2023) finding that patient stories blend content about outcomes and experiences in ways that feel authentic while providing concrete evidence of brand quality. These integration implications provide theoretical grounding for examining how imaginable plot in Study 2 might organize and balance these content components when they appear together in complete patient stories.

Summary. These theoretical insights collectively demonstrate how isolated content types operate through distinct processing routes, fundamentally challenging universal assumptions about how story elements function. By supporting the integration of content-focused theories like NIM with structure-focused theories like ETIM, Study 1 findings advance toward a more comprehensive theoretical framework for understanding patient stories. The revised hierarchy of narrative mechanisms, with identification playing a more central role than transportation, has particular significance for vulnerable healthcare consumers who may base treatment decisions on their ability to see themselves in patient stories. The selective matching pattern suggests that concrete physical outcome content provides cognitive anchors that facilitate belief formation across domains, while the content-specific character effects demonstrate how character presence functions differently depending on content type. Together, these findings address the critical gap in current narrative persuasion research identified by Sun et al. (2024), who noted that scholars are still working to answer which story features matter most and why. The Content-Moderated Dual-Process Model provides a theoretical framework that explains both how isolated content types function and how they might operate when combined in complete patient stories with both character presence and plot structure—setting the stage

for Study 2, which will validate these findings using complete stories that are nearly five times longer than the short content types used in Study 1.

Practical Implications

The findings from Study 1 translate into actionable guidance for patient story design, with strategic decisions about content type and character presence informed by component-level insights. Although patient stories typically integrate physical outcome, psychological outcome, and experience content with identifiable characters and imaginable plots, understanding how these components function in isolation provides valuable guidance for their strategic integration. This section synthesizes practical implications for patient story design, focusing on how component-level insights can inform the construction of complete stories that effectively balance multiple content types to achieve specific communication objectives.

Component-Based Strategic Approach. Study 1 findings support a component-based strategic approach to patient story design that considers how content types function both independently and collectively. Rather than treating patient stories as undifferentiated narratives, healthcare communicators can strategically emphasize and position different content components based on specific persuasion objectives. For enhancing overall ad effectiveness, physical outcome content appears most valuable based on its unique ability to enhance this outcome compared to control ($\beta = 0.196$, $p = .006$ with character; $\beta = 0.153$, $p = .038$ without character). For building beliefs across domains, physical outcome content showed unexpected versatility, enhancing not only physical beliefs but also psychological and experience beliefs compared to their corresponding content types. For helping consumers forecast future emotional states,

experience content without character presence demonstrated superior effects, with experience content showing stronger effects on forecasting than other content types (coefficient difference vs. physical = 0.637, $p < .001$; vs. psychological = 1.160, $p < .001$) and character absence enhancing forecasting compared to character presence ($\beta = -0.511$, $p = .001$). For strengthening brand beliefs, experience content with character presence showed the strongest effects, significantly enhancing brand beliefs compared to experience content without character presence ($\beta = 0.218$, $p = .034$). These objective-specific recommendations provide a foundation for strategically emphasizing different content components within complete patient stories based on specific communication goals.

The component-based approach acknowledges that different content types activate distinct processing routes when presented in isolation, with implications for their strategic integration in complete stories. Physical outcome content activated complementary observational and analytical routes, suggesting it can effectively bridge emotional and rational processing when integrated with other content types. Psychological outcome content primarily activated the analytical route, with character presence triggering skepticism rather than narrative engagement, suggesting it may require strategic positioning and evidence-based support in complete stories. Experience content activated competing observational and simulation routes, suggesting that its presentation format may determine whether it primarily enhances brand beliefs (through observational learning) or forecasting (through simulation) when integrated with other content types. These route-specific insights suggest that complete patient stories might

strategically sequence and present content types to optimize activation of desired processing routes while managing potential conflicts between routes.

Outcome-Specific Optimization. The findings support outcome-specific optimization of patient story content based on specific communication objectives. Based on the component-level insights from Study 1, healthcare communicators can strategically emphasize and position content types within complete stories to optimize particular outcomes.

For enhancing ad effectiveness, physical outcome content (with or without character) appears most effective. Complete patient stories might:

- Emphasize concrete, tangible outcomes early in the story.
- Include specific, measurable improvements in physical symptoms or functioning.
- Establish clear cause-effect relationships between treatments and physical outcomes.
- Balance emotional patient testimonials with objective evidence of results.

For building multi-domain beliefs, physical outcome content showed unexpected versatility. Complete patient stories might:

- Lead with concrete physical outcomes to establish a foundation of credibility.
- Use physical outcomes as “proof points” that enhance receptivity to psychological and experience content.
- Create explicit connections between physical improvements and psychological benefits.

- Position physical outcomes as objective verification for more subjective claims.

For enhancing affective forecasting, experience content without character presence showed superior effects. Complete patient stories might:

- Include sections that describe treatment experiences without attribution to specific characters.
- Use second-person perspective (“you will experience”) for forecasting-focused sections.
- Provide detailed sensory and emotional information about typical experiences.
- Create “blank slate” scenarios that facilitate consumer self-projection.

For strengthening brand beliefs, experience content with character presence showed the strongest effects. Complete patient stories might:

- Develop relatable, identifiable characters when describing service experiences.
- Include direct quotes about interpersonal aspects of care.
- Focus on memorable moments in the service journey through character experiences.
- Emphasize emotional responses to service interactions through character perspectives.

These objective-specific optimizations acknowledge that different components of patient stories serve distinct persuasive functions. Rather than applying universal “best

practices” across stories, healthcare communicators can make strategic decisions about content emphasis and presentation based on specific persuasion objectives.

Strategic Character Presence. Study 1 revealed that character presence functions differently across content types when presented in isolation, suggesting the need for strategic decisions about character presentation in complete patient stories. Rather than assuming that identifiable characters universally enhance persuasion, healthcare communicators can make evidence-based decisions about character inclusion and presentation based on content emphasis and specific objectives. For physical outcome content, character presence had neutral effects, suggesting flexibility in presentation decisions without significant persuasive costs. For psychological outcome content, character presence consistently diminished persuasion, suggesting caution in using character testimonials for abstract psychological claims. For experience content, character presence enhanced brand beliefs but diminished forecasting, suggesting the need to balance observational learning and simulation processes based on communication priorities.

These content-specific patterns suggest several strategic approaches to character presence in complete patient stories:

- **Content-Based Character Emphasis.** Emphasize character presence for physical outcome and brand-focused experience content while de-emphasizing character for psychological outcome content and forecasting-focused experience content.
- **Strategic Attribution.** Present physical outcomes and some experiences through character testimonials while presenting psychological outcomes and forecasting-relevant experiences through more generalized formats.

- ***Graduated Character Introduction.*** Introduce character gradually, beginning with objective physical outcomes before progressing to more subjective psychological outcomes, to establish credibility before addressing abstract dimensions.
- ***Multiple Character Perspectives.*** Use multiple characters rather than single exemplars for psychological content to establish pattern credibility rather than individual testimonial credibility.
- ***Character-Context Alignment.*** Align character attributes and experiences with specific content types, using expert voices for analytical content and relatable peers for experiential content.

These strategic approaches acknowledge the content-conditional effects of character presence observed in Study 1 while suggesting how character presence might be optimized within complete patient stories that integrate multiple content types. While the small effect sizes observed in the analyses (typically $R^2 < 0.05$) suggest that character presence decisions alone will not dramatically transform persuasive outcomes, strategic optimization of character presence based on content emphasis may incrementally enhance story effectiveness.

Content Integration Strategies. The component-level insights from Study 1 suggest several strategies for effectively integrating multiple content types in complete patient stories. Rather than treating content integration as a simple combination of elements, healthcare communicators can strategically sequence and connect content types to optimize their collective effectiveness:

- ***Strategic Sequencing.*** Begin with concrete physical outcomes to establish credibility before addressing more abstract psychological outcomes or subjective experiences. This sequencing leverages physical content's concrete anchoring effect to enhance receptivity to subsequent content types.
- ***Explicit Content Connections.*** Create clear connections between content types, such as linking physical improvements to psychological benefits, or connecting service experiences to specific outcomes. These connections may mitigate domain-specific limitations observed in isolated testing.
- ***Processing Route Management.*** Acknowledge the distinct processing routes activated by different content types and strategically manage potential conflicts. For example, experience content sections might be divided into character-focused portions (enhancing observational learning) and character-absent portions (enhancing simulation).
- ***Balanced Evidence and Narrative.*** Complement story elements with appropriate evidentiary support, particularly for psychological content where character testimonials alone triggered skepticism in isolated testing.
- ***Targeted Section Development.*** Develop specific story sections to address particular objectives, recognizing that different content combinations may serve distinct persuasive functions within a complete story.

These integration strategies acknowledge the distinct patterns observed for isolated content types while suggesting how these patterns might inform the construction of complete patient stories that effectively balance multiple content types. Study 2's examination of imaginable plot as an integration mechanism will provide further insights

into how narrative structure might organize these content components when they appear together in complete patient stories.

Implementation Considerations. The small effect sizes observed in Study 1 (typically $R^2 < 0.05$) suggest important implementation considerations for applying these component-level insights to patient story design. Rather than viewing content type and character presence decisions as transformative elements that dramatically alter persuasion, healthcare communicators should approach them as optimization factors that incrementally enhance message effectiveness when strategically applied. Several implementation strategies can maximize the practical impact of these optimizations:

1. ***Consistent Application.*** Apply strategic content and character decisions consistently across multiple touchpoints to create cumulative effects that exceed the small individual effects observed in experimental conditions.
2. ***Complementary Elements.*** Combine content and character optimizations with other evidence-based approaches to healthcare communication (e.g., message framing, visual design, channel selection) to create synergistic effects.
3. ***Consumer Targeting.*** Consider factors such as health literacy, prior experience, and individual differences when implementing content and character strategies, as these factors may moderate component effects.
4. ***Testing and Refinement.*** Use A/B testing with actual target consumers to identify which specific implementations most effectively enhance persuasion in real-world settings.

These implementation considerations acknowledge the modest effect sizes observed in Study 1 while providing practical approaches to maximizing the impact of content type and character presence decisions in patient story contexts.

The practical implications of Study 1 collectively demonstrate how understanding component-level functions can inform the construction of more effective integrated patient stories. By making strategic decisions about content emphasis, character presence, and integration approaches based on specific communication objectives, healthcare communicators can optimize patient story effectiveness without relying on universal “best practices” that may not acknowledge content-specific effects. While the Content-Moderated Dual-Process Model specifically explains how content types function in isolation, the practical insights derived from this model provide valuable guidance for the strategic construction of complete patient stories that integrate multiple content types.

Connections to Study 2

The Study 1 findings provide an important theoretical foundation for Study 2, which examines how imaginable plot (high vs. low narrativity) and identifiable character (present vs. absent) influence narrative persuasion in patient stories that integrate content about physical outcomes, psychological outcomes, and experience. While Study 1 deliberately deconstructed patient stories to understand their component parts—a necessary first step in investigating component effects (Shaffer et al., 2018a)—Study 2 examines how these elements function when combined in complete stories that resemble real-world patient stories. This progression from isolated components to integrated stories addresses Berry et al.’s (2020) observation that academic health centers routinely use

carefully crafted stories that blend multiple content types to shape decisions of vulnerable consumers facing life-altering treatment choices.

CMDPM as a Foundation for Plot Narrativity. The Content-Moderated Dual-Process Model (CMDPM) suggests that imaginable plot may function as an integrative mechanism that helps organize and balance multiple content types and their associated processing routes. This prediction aligns with Schreiner et al.'s (2018) narrativity theory, which explains how the arrangement and connection of story events influences narrative processing and persuasion. High-narrativity plots feature clear causal relationships, coherent temporal structure, and meaningful resolution that integrates different types of content. While narrative theories such as the Extended Transportation Imagery Model (ETIM, van Laer et al., 2014) suggest that imaginable plot universally enhances narrative engagement, the CMDPM developed through Study 1 predicts that plot will function as a moderator that determines which content-activated processing routes become dominant when multiple content types appear together.

This integrative function of plot builds on research showing that patient stories typically employ familiar plot structures emphasizing triumph over adversity, with patients portrayed as active protagonists who overcome health challenges through the healthcare brand's intervention (McLeod, 2022, 2023; Willett, 2024). Plot potentially serves as the structural element that determines how deeply consumers engage with stories (Shaffer et al., 2018a). When applied to integrated patient stories, a high-narrativity plot may enhance emotional resonance through coherent structure while simultaneously supporting critical evaluation by making causal relationships explicit—

addressing the tension between emotional engagement and informed decision making that Schenker et al. (2014) identify as a central ethical concern in healthcare advertising.

Character Presence in Integrated patient stories. The Study 1 character presence findings generate more nuanced predictions for Study 2 than would be possible without component-level analysis. Traditional narrative theories suggest that identifiable characters universally enhance transportation and identification (Green & Brock, 2000; Cohen, 2001), but Study 1 revealed content-conditional effects that challenge this assumption: neutral effects for physical outcome content, negative effects for psychological outcome content, and mixed effects for experience content. In integrated patient stories containing all content types, character presence may create tension between competing processing routes—enhancing observational processes while potentially triggering critical evaluation.

This prediction addresses a significant gap in current understanding of how consumers interact with patient story advertising. While content analyses have documented the strategic use of character presentation in patient stories (Martel et al., 2022; McLeod, 2023), experimental research has not systematically examined how these character presentations affect consumer response across integrated content domains (Kemp et al., 2015, 2017). The Critical Evaluation Hypothesis developed for psychological content and the Blank Slate Hypothesis proposed for experience content suggest that in complete patient stories, character presence might enhance engagement with certain content elements while simultaneously creating resistance to others—a complexity that explains why exemplification theory’s predictions about character effects (Zillmann, 1999, 2006) may not apply uniformly in this context.

While Study 1 did not directly measure skepticism or counter-arguing, the negative effects observed for psychological outcome content with character presence strongly suggest increased critical evaluation. Study 2 explicitly addresses this limitation by including direct measures of counter-arguing and persuasion knowledge activation, allowing for empirical testing of the Critical Evaluation Hypothesis in integrated patient stories. This measurement addition represents an important methodological refinement that will allow for direct assessment of whether high narrativity mitigates the skepticism that psychological content appeared to trigger in Study 1. By measuring counter-arguing directly, Study 2 can determine whether the resistance observed with isolated psychological content persists when this content is integrated with physical outcome and experience content in a high-narrativity plot structure.

Mediation Pathways in Complete Patient Stories. The mediation hypotheses in Study 2 should be viewed through the lens of the complex route-specific processes identified in Study 1. The identification primacy finding—where identification significantly affected ad effectiveness ($\beta = 0.087$, $p = .014$) while transportation did not ($\beta = 0.035$, $p = .404$)—suggests a revised hierarchy of narrative engagement that contradicts Shaffer et al.’s (2018a) Narrative Immersion Model, which identifies transportation as the deepest level of narrative immersion. The Study 1 identification primacy finding suggests identification enables deeper perspective-taking that significantly influences attitudes and behaviors, particularly in healthcare contexts where personal relevance is high.

Based on Study 1, it can be predicted that identification would show stronger mediation effects than transportation across integrated content narratives. This prediction

extends recent meta-analyses showing that while transportation is consistently identified as a mechanism for persuasion in stories (compared to non-narrative formats), understanding exactly how stories work requires examining multiple theoretical mechanisms simultaneously (Sun et al., 2024). For complete patient stories, the CMDPM suggests that these mediating mechanisms may operate as part of an interconnected network rather than as isolated pathways—with identification potentially serving as a primary pathway through which character presence influences persuasive outcomes across integrated content domains.

Moderators in Integrated Patient Stories. The individual difference moderators examined in Study 2 acquire additional significance in the context of the route-specific framework established in Study 1. The CMDPM suggests that moderator effects may vary systematically based on which processing routes are activated by different content types. This prediction extends van Laer et al.’s (2014) identification of story receiver characteristics that influence transportation by suggesting that these moderators may function differently across processing routes activated by integrated content.

For healthcare contexts specifically, this suggests that moderators related to healthcare involvement—including prior attitudes (Meyer et al., 2024; Straten et al., 2002), healthcare access (Andersen, 1995), and health status (Andersen, 1995)—may influence which processing routes become dominant when consumers encounter integrated patient stories. This perspective addresses Freling et al.’s (2020) visceral congruity framework, which suggests that healthcare contexts amplify certain moderator effects by increasing both personal relevance and threat severity. Applied to integrated patient stories, this suggests that individual differences may determine whether

consumers primarily engage through observational learning, self-referential simulation, or critical evaluation when exposed to multiple content types simultaneously.

Plot as an Integration Mechanism. Study 2's examination of plot addresses a critical question left unanswered by Study 1: How do content types that activate distinct processing routes in isolation function when combined in complete patient stories? The CMDPM suggests that plot may determine which routes become dominant in patient stories by establishing hierarchical relationships between content types. This prediction extends narrativity theory (Schreiner et al., 2018) by suggesting that plot structure not only enhances engagement but also shapes how consumers balance different types of information within a story.

High narrativity might enable character presence to enhance observational routes while mitigating the critical evaluation that psychological content triggered in Study 1. This integrative function addresses what Sun et al. (2024) identify as a critical gap in narrative persuasion research: understanding which story features matter most and why. By examining how narrativity interacts with character presence in integrated content, Study 2 provides insight into how structural elements might organize content-activated processing routes in ways that balance emotional engagement with critical evaluation—a balance that Rubenson and Kapp (2017) and Schwartz and Woloshin (2016) identify as crucial for ethical healthcare advertising.

Research Questions in Context of CMDPM. The research questions in Study 2 regarding perceived character presence acquire additional significance in light of Study 1 findings. The pre-test observation that a high-narrativity plot led participants to perceive character presence in the character-absent condition suggests that plot structure may

fundamentally shape how consumers process character information in integrated patient stories. This unexpected finding extends exemplification theory by suggesting that narrative structure itself may create a coherent character perspective even without explicit character identification—potentially explaining why patient stories with strong plot structures exert disproportionate influence on healthcare decisions despite variations in character presentation. The Study 1 findings suggest that high-narrativity plots may enhance perceptions of character presence through coherent structure, potentially amplifying the effects of both observational and simulation routes identified in the CMDPM. This interaction between plot structure and perceived character would provide important insight into how patient stories achieve their effects through structural elements that organize and integrate multiple content types.

Theoretical Integration Across Studies. The connections between Study 1 and Study 2 illustrate how research can build toward a comprehensive theoretical framework that explains how patient stories influence healthcare decision making. If Study 2 confirms that imaginable plot functions as an integrative mechanism that helps balance multiple content types and their associated processing routes, this would provide important support for the CMDPM as a foundation for understanding patient story advertising persuasion. Such findings would suggest that real-world patient stories containing multiple content types might be optimized through strategic decisions about plot structure and character presence based on which processing routes should be emphasized for specific persuasion objectives.

This integrated framework addresses what Berry et al. (2020) and McLeod (2022, 2023) identify as concerning patterns in healthcare narrative advertising while providing

both theoretical understanding and practical guidance for developing more balanced approaches. By specifying how story elements—content type, character presence, and plot structure—interact to influence persuasive outcomes through distinct processing routes, the framework would explain when and why different story elements enhance or diminish persuasion rather than assuming universal enhancement effects. This advances beyond existing theoretical approaches to provide a more comprehensive understanding of how patient stories influence consumer healthcare decisions in this high-stakes context.

Limitations and Future Directions for Research

The Study 1 findings should be interpreted in light of several important limitations that inform both Study 2 and future research directions. These limitations reflect inherent constraints of the component-level approach while suggesting how subsequent research might build upon this foundation.

Effect Size Considerations. The small effect sizes observed across analyses (typically $R^2 < 0.05$) indicate that isolated content type and character presence function as optimization rather than transformation factors. This pattern aligns with broader narrative persuasion research, where meta-analyses by Braddock and Dillard (2016) and Shen et al. (2015) consistently show modest but significant effects of stories on persuasion outcomes. The small effect sizes may stem from several methodological factors: the single-exposure design that cannot capture cumulative effects over time, the use of text-based stimuli rather than richer multimedia formats, and the testing of isolated content components rather than integrated stories. These constraints suggest that content type and character presence should be viewed as strategic optimization elements rather than

transformative factors—a particularly important consideration given healthcare brands’ enhanced obligations to balance persuasive effectiveness with ethical responsibility toward vulnerable consumers (Schwartz & Woloshin, 2016).

The practical significance of these small effects takes on added importance in healthcare contexts, where even modest improvements in communication effectiveness could meaningfully impact consumer wellbeing. As Berry et al. (2020) note, cancer patients face life-altering decisions based on limited information, making narrative evidence especially influential despite modest statistical effect sizes. The small but consistent content-specific patterns observed in Study 1 suggest that strategic optimization of patient stories based on content-specific processing routes could incrementally enhance both persuasive impact and informed decision making—a balance that Schenker et al. (2014) identify as crucial for ethical healthcare advertising.

Generalizability Considerations. The generalizability of Study 1 findings across different healthcare contexts, patient populations, and message formats requires further investigation. The study examined stories about colon cancer treatment (radiation, chemotherapy, and surgery) rather than focusing solely on one specific treatment or procedure, potentially limiting ecological validity for healthcare decisions. Similarly, the use of a general population sample rather than consumers with specific health concerns may not fully capture how narrative persuasion operates for those actively seeking healthcare information. As Hlubocky et al. (2020) observe, cancer patients’ vulnerability stems from the combination of complex medical decisions and emotional distress, creating a decision context that experimental designs with general populations cannot fully simulate.

The text-based format of the experimental stimuli represents another generalizability constraint. While patient stories appear across multiple media channels (Park et al., 2023), this study focused exclusively on text-based stories. This limitation is significant given that healthcare brands increasingly deploy multimedia patient stories across owned, earned, and paid media channels (Willett, 2024). Research shows that presentation format can influence narrative engagement processes, with video potentially enhancing transportation while text may facilitate analytical processing (Shen et al., 2015). These format differences might interact with the content-specific processing routes identified in Study 1, potentially moderating the effects of content type and character presence observed with text-based stimuli.

Measurement Model Considerations. The measurement model refinements for mediator variables warrant consideration when interpreting Study 1 findings. The initial measurement model for mediator variables showed unacceptable fit ($CFI = 0.843$, $TLI = 0.826$), necessitating several modifications including parceling for identification, emotional response, and transportation, as well as allowing correlated residuals between conceptually related indicators. These modifications align with Shaffer et al.'s (2018a) Narrative Immersion Model (NIM) that conceptualizes narrative engagement as a hierarchical process progressing from interest through involvement (identification) to immersion (transportation). The need for correlated residuals between transportation, emotional response, and identification measures is theoretically consistent with this hierarchical framework, where deeper levels of engagement build upon earlier levels.

While these measurement decisions are theoretically justified, they highlight challenges in empirically distinguishing between interrelated narrative processes that may

function as a continuum rather than as discrete mechanisms. The hierarchical nature of narrative engagement proposed in the NIM may explain why transportation and identification did not show independent mediation effects—these processes may operate as an integrated system rather than as parallel pathways when content types are presented in isolation. This measurement limitation aligns with Sun et al.’s (2024) observation that narrative persuasion research still struggles to identify which story features matter most and why, partly because of challenges in measuring distinct but interrelated narrative processes.

Integration Questions. The component isolation approach of Study 1, while valuable for understanding how content types function independently, raises important questions about component interactions that Study 2 begins to address. When content types are integrated in complete patient stories, several critical questions emerge: Do the processing routes identified for isolated content types operate simultaneously or sequentially when content types appear together? Does one content type establish processing dominance that influences how other content types are processed? How do character presence effects for one content type influence processing of other content types presented within the same story?

These integration questions directly address what McLeod (2022, 2023) and Willett (2024) identify as the strategic integration of multiple content types in healthcare brand patient stories. Actual patient stories blend content about physical outcomes, psychological transformation, and treatment experiences with identifiable characters and coherent plot structures to influence consumer healthcare decisions. Understanding how these elements interact when combined is crucial for both theoretical development and

practical application. As Berry et al. (2020) note, academic health centers routinely use patient stories to shape decisions of highly vulnerable consumers facing life-altering treatment choices, making it particularly important to understand how content elements function collectively rather than just in isolation.

Study 2's examination of plot as a potential integrative mechanism begins to address these questions by investigating how narrative structure might organize and balance multiple content types and their associated processing routes. Plot could potentially determine which processing routes become dominant when multiple content types appear together—enhancing transportation as Schreiner et al. (2018) suggest while potentially moderating the content-specific effects observed in Study 1. The examination of interaction effects between plot narrativity and character presence will provide initial insights into how structural elements might organize content-activated processing routes in ways that balance emotional engagement with critical evaluation.

Future research beyond Study 2 should continue to explore how the component-level insights from Study 1 translate to integrated patient stories. Process-tracing methodologies could examine the cognitive and emotional processes activated when consumers encounter multiple content types sequentially or simultaneously. Studies manipulating content type prominence or placement within integrated stories could examine whether the dominant or first content type determines overall processing patterns. Research varying the explicitness of connections between content types could test whether integration quality moderates how component-level effects translate to integrated contexts.

The limitations of Study 1's component isolation approach provide important context for interpreting its findings while highlighting the value of Study 2's examination of complete patient stories with integrated content types. By addressing the integration questions raised by Study 1, Study 2 represents an important next step in understanding how patient stories influence vulnerable healthcare consumers' decision making in this high-stakes context.

Conclusion

Study 1 contributes to narrative persuasion theory by demonstrating that content type fundamentally moderates how story elements function when presented in isolation, challenging universal process assumptions and suggesting a more nuanced, component-specific approach to understanding patient story persuasion. The Content-Moderated Dual-Process Model (CMDPM) addresses significant theoretical gaps in both the Narrative Immersion Model (NIM, Shaffer et al., 2018a) and the Extended Transportation-Imagery Model (ETIM, van Laer et al., 2014) by explaining why different story elements influence consumer response differently based on content type. This integration of content-focused and structure-focused approaches transforms understanding of narrative persuasion by positioning content type as the primary moderator that determines which processing routes are activated and how story elements function, advancing beyond the universal enhancement assumption common in narrative persuasion research (Green & Brock, 2000, 2002; van Laer et al., 2014).

The CMDPM's identification of three distinct processing routes—observational, simulation, and analytical—addresses what Sun et al. (2024) identify as a critical gap in narrative persuasion research: understanding which story features matter most and why.

By specifying that physical outcome content activates complementary observational and analytical routes, psychological outcome content primarily activates analytical routes with critical evaluation processes, and experience content activates competing observational and simulation routes, the model provides both explanatory power for complex empirical patterns and predictive value for understanding how these components might function in integrated stories. This route-specific approach extends narrative processing theories by showing that different content types naturally engage distinct cognitive and emotional processes, challenging the assumption that transportation uniformly mediates narrative effects regardless of content (Green & Brock, 2000, 2002).

The identification primacy finding—where identification significantly affected ad effectiveness while transportation did not—further refines narrative persuasion theory by suggesting a revised hierarchy of mechanisms. This finding supports Cohen's (2001) emphasis on identification as a central mechanism through which stories influence attitudes and behaviors, particularly in personally relevant contexts. Similarly, the selective content-matching pattern extends theory by demonstrating that different types of outcome content (physical vs psychological) have different effects, with concrete physical outcome content functioning as a cognitive anchor that facilitates belief formation (Shaffer & Zikmund-Fisher, 2013; Shaffer et al., 2018a). These theoretical refinements collectively address Berry et al.'s (2020) call for systematic experimental investigation of how story features work independently and together to influence consumer response in healthcare contexts.

The Study 1 findings provide an important foundation for Study 2, which examines how imaginable plot interacts with character presence in complete patient

stories. This progression from isolated components to integrated stories addresses McLeod's (2022, 2023) and Willett's (2024) observations that actual patient stories strategically combine physical outcomes, psychological transformation, and treatment experiences with identifiable characters and coherent plot structures. The CMDPM suggests plot narrativity may function as an integrative mechanism that helps organize and balance multiple content types and their associated processing routes when they appear together in real-world patient stories. This prediction extends Schreiner et al.'s (2018) narrativity theory by suggesting that plot structure not only enhances engagement but also determines which processing routes become dominant when multiple content types appear together.

While Study 1 provides explanatory value by identifying content-specific processing routes that account for unexpected patterns, Study 2 offers predictive value by examining how these routes might interact in integrated stories. This complementary approach directly addresses this dissertation's purpose of exploring how intrinsic features of cancer patient stories influence consumer perceptions and decision making in this high-stakes context. By systematically deconstructing and then reconstructing patient stories, this research provides both theoretical understanding and practical guidance for developing patient stories that effectively engage consumers while supporting informed decision making—addressing the critical knowledge gap in healthcare services advertising research.

The theoretical and practical contributions of this research have important implications for healthcare communication ethics. By moving beyond universal “best practices” to a more nuanced, content-specific approach to patient story design,

communicators can develop more effective stories that achieve specific persuasion objectives while respecting consumer autonomy. This directly addresses what Schenker et al. (2014) and Schwartz and Woloshin (2016) identify as a central ethical concern: how patient stories might help or hinder informed decision making among vulnerable healthcare consumers. The CMDPM provides an empirical framework for evaluating whether specific storytelling approaches enhance or diminish informed decision making, potentially guiding policy recommendations for academic health centers that currently face minimal oversight in their patient story construction (Schwartz & Woloshin, 2016; Rubenson & Kapp, 2017).

The journey from unexpected empirical patterns to an integrated theoretical framework demonstrates the value of theory-building research in advancing understanding of healthcare communication. The CMDPM transforms understanding of component-level persuasion by moving beyond universal process assumptions to a content-specific, route-activated approach that accounts for the complex patterns observed across story elements and persuasive outcomes. As Study 2 extends this investigation to examine how plot narrativity and character presence function in integrated stories containing multiple content types, this research provides a foundation for understanding how patient stories influence vulnerable healthcare consumers in this high-stakes decision context (Berry et al., 2020; Hlubocky et al., 2020).

Chapter 4: Study 2

Method

A 2 (Plot structure: High narrativity vs. low narrativity) x 2 (Identifiable character: Present vs. absent) x 1 (No message control) between-subjects factorial design online experiment was used to test hypotheses H6–H15 and RQ1-5. A total of four experimental stimuli were developed (see Materials and Manipulations). As in Study 1, all participants were shown a description of University Medical Center as control condition. This resulted in five conditions. A priori power analysis using G*Power (Cohen's $d = 0.20$, $\alpha = .05$, power = .80) showed the study required 893 participants. The expected effect size was determined based on meta-analyses that compare narrative features (Sun et al., 2024). Pre-test findings prompted oversampling of one condition, increasing the number of required participants to between 964 and 1,014 participants. Participants were compensated \$3.50 for completing the study.

Materials and Manipulations

Study 2 followed the stimuli development process described in the Study 1 Materials and Manipulations section, with the below differences.

Mapping. The mapping phase included determining manipulations, context, and choosing existing ads to use as examples. Study 2 differed in its inclusion of plot manipulation.

Plot Manipulation. The plot manipulation followed Schreiner et al. (2018) by operationalizing narrativity through two conditions: high narrativity and low narrativity. The high narrativity conditions featured a linear, chronological structure with a clear temporal sequence and a three-act format (beginning, middle, and end). Events were

causally connected to illustrate how patients faced a health challenge (beginning), how the healthcare brand intervened (middle), and how this intervention led to positive outcomes (end). The high narrativity conditions had five sections in this order: Initial diagnosis, treatment planning, experience content, physical outcomes content, and psychological outcomes content. Transitions between events were smooth, and each event built upon the preceding one to create a cohesive and immersive narrative flow. In contrast, the low narrativity conditions presented the same events in a disrupted temporal sequence by rearranging them (Appel et al., 2015; Voss et al., 1999; Wang & Calder, 2006). The sections in the low narrativity conditions were presented in this order: experience content, psychological outcomes content, initial diagnosis, physical outcomes content, and treatment planning.

Assembling. The assembling phase includes choosing a generative AI tool, formulating prompts, evaluating output, and editing output. The resulting Study 2 stimuli satisfied each of the four experimental conditions (high narrativity/character present; high narrativity/character absent; low narrativity/character present; low narrativity/character absent). The stories with identifiable characters were headlined, “Life Changed in an Instant: Sarah Mitchell’s Story,” while the stories with no identifiable character were headlined, “Lives Changed in an Instant: Patients’ Stories.” See Table 2 for stimuli word count and reading ease scores and Appendix A for the complete stimuli.

Demonstrating. For the Demonstrating phase, the stimuli were pre-tested to evaluate participants’ perceptions of the manipulations.

Pre-Test

Procedure. Similar to Study 1, before the Study 2 main experiment, a pre-test study was conducted. A priori power analysis using G*Power (Cohen's $d = 0.70$, $\alpha = .05$, power = .80) showed the pre-test required 100 participants. A total of 120 participants were recruited through Prolific to ensure at least 25 participants per condition accounting for attrition. Participants were required to be located in the United States, ages 18 or older, speak English as their primary language, and have no history of cancer. The final sample size was 108 (24-30 per condition). Average completion time was eight minutes and 25 seconds. Each participant was compensated \$2 for completing the study.

First, each participant was shown information about the research and asked to consent. Next, each participant was randomly assigned to one of four conditions and viewed one patient story. After reading the story, participants completed several measures. For narrativity, participants were asked to rate their agreement with three items on a scale of 1 (strongly disagree) to 7 (strongly agree): "The story presented events in chronological order," "The events in the story connected to each other in a clear way," and "The story flowed smoothly from beginning to end." These items directly assess the core elements of the narrativity manipulation as operationalized in the stimuli: chronological versus topic-organized structure, causally connected versus disconnected events, and smooth versus disrupted narrative flow. The manipulation was evaluated to see if the high narrativity condition scored significantly higher than the low narrativity condition ($p < .05$) with an effect size of Cohen's $d \geq 0.70$. The identifiable character manipulation measure and story quality measures were the same as described for Study 1 pre-test.

Results. All stories demonstrated strong perceived realism ($M_s = 5.67\text{-}6.08$) and credibility ($M_s = 5.90\text{-}6.32$), with means well above the threshold of 4.0 on 7-point scales. The reliability of the two-item credibility scale was acceptable ($\alpha = 0.78$). High-narrativity stories ($M = 6.33$, $SD = 0.66$, $n = 54$) rated significantly higher than low-narrativity stories ($M = 5.13$, $SD = 1.33$, $n = 54$) on the 3-item narrativity manipulation scale, $t(77.55) = 5.98$, $p < .001$, $d = 1.15$. Participants correctly identified the character manipulation (identifiable character present vs absent) in three conditions (95.8-100% correct). Condition 2 fell well below the 75% threshold (51.7%, $n = 29$). Reading times were comparable across conditions ($Mdn = 137.69\text{-}160.60$ seconds).

The results for Condition 2 (high narrativity, character absent) revealed an interesting theoretical insight about story processing. Although this condition included generalized language referring to “patients” rather than an identifiable patient, nearly half of participants perceived the story as describing one specific patient’s experience. These participants wrote in the open-ended responses: “Dr. Chen seems to help the person a lot,” “the patient was cured,” “the patient learned from the experience,” “the person advocated health.” This suggests that high narrativity, with its linear, causally connected flow, may naturally lead readers to perceive a coherent character perspective even when presented without an identifiable character. Condition 2 had strong realism ($M = 5.86$) and credibility ($M = 5.97$) ratings. This indicates that high narrativity can successfully engage readers with generalized patient experiences while maintaining realism and credibility.

For Condition 4, the other condition with no identifiable character, participants correctly identified that it described generalized patient experiences (95.8%, $n = 24$) even

though it used identical content as Condition 2 but in a non-linear structure. This further supports the interpretation about high narrativity. The temporal disruption in low narrativity conditions appears to prevent readers from perceiving a singular patient perspective even with the same level of story detail. These results suggest that plot structure plays a crucial role in how readers process and construct character perspectives, with potential implications for patient stories. Based on this insight, the following hypothesis and research questions will be examined in Study 2.

First, the study predicts that high narrativity will lead to greater character perception in stories with no identifiable character. Character perception means participants perceive the story is about a specific patient when there is no identifiable character in the story. Thus, this hypothesis:

H15: In the absence of an identifiable character, high narrativity plot structure will lead to increased character perception compared to low narrativity plot structure.

Next, two research questions will explore the relationship between plot structure and character perception.

RQ1a: Is high narrativity plot structure associated with greater character perception in stories without identifiable characters?

RQ1b: Does the effect of narrativity on character perception differ between stories with and without identifiable characters?

Next, two sets of research questions explore the influence of character perception on story responses and outcomes and then compare those effects with character presence effects.

RQ2: What are the effects of character perception in condition 2 (story with high narrativity and no identifiable character) on:

- a) Transportation?
- b) Identification?
- c) Perceived similarity?
- d) Emotional responses?
- e) Ad effectiveness?

RQ3: Are the effects of character perception in Condition 2 (RQ2a-e) comparable to the effects of character presence in Condition 1 (story with high narrativity and identifiable character)?

Next, to better understand which participants are more likely to perceive characters in generalized stories, the following research question will be examined:

RQ4: How do individual differences and healthcare involvement influence character perception in stories without identifiable characters?

Finally, the role of character perception as a mediator will be explored.

RQ5: Does character perception mediate the relationship between plot structure and ad effectiveness in stories without an identifiable character?

- a) In Condition 2 (high narrativity, no identifiable character), does character perception mediate the effect of plot structure on ad effectiveness?
- b) In Condition 4 (low narrativity, no identifiable character), does character perception mediate the effect of plot structure on ad effectiveness?

The addition of this hypothesis and the research questions acknowledges the potential theoretical significance of the pre-test finding by replicating the finding,

examining its influence on story responses and brand outcomes, and determining how it is influenced by individual differences.

Measures

Study 2 used the same measures as Study 1 plus those listed below. See Appendix B for a full list of measures for both studies. Unless otherwise noted, participants are asked to indicate the extent to which they agree or disagree with the statements, with 1 = strongly disagree and 7 = strongly agree.

Counter-Arguing. Counter-arguing was assessed with three items from Silvia (2006). These included “I criticized the story while reading it,” “I thought of points that went against what was being said in the story,” and “While reading the story, I was skeptical of what was being said.”

Persuasion Knowledge. Persuasion knowledge was assessed using six items from Ham et al. (2015). These included, “This story is trying to influence my healthcare choices” and “The story manipulates emotions to promote the healthcare center.”

Familiarity. Familiarity was measured using three items adapted from Green (2004): “I know a lot about the topic of this story” (knowledge-based familiarity); “I can relate to the context or events in the story based on my own experiences” (experience-based familiarity); and “This type of story is familiar to me” (genre-based familiarity).

Attention. Attention was measured using six items adapted from Green and Brock (2000), encompassing focused attention and distraction indicators. Items included “I paid close attention to the story” (focused attention) and “I found it hard to stay focused on the story” (distraction indicators). Distraction indicators were reverse-coded.

Threat Severity. Threat severity was measured using the perceived severity subfactor of Witte et al.’s (1996) risk behavior diagnosis scale. Items are, “Cancer is severe,” “Cancer is serious,” and “Cancer is significant.”

Transportability. Transportability was measured using four items adapted from Mazzocco and Green (2011). Items included, “I am mentally involved in stories while reading them” and “Stories affect me emotionally.”

Trait Empathy. Trait empathy was measured using six items adapted from Davis (1983), encompassing two subscales: perspective taking and empathic concern. Items included, “I try to look at everybody’s side of a disagreement before I make a decision” (perspective taking) and “I often have tender, concerned feelings for people less fortunate than me” (empathic concern).

Prior Attitudes Toward Healthcare. Prior attitudes toward healthcare were measured using 3 items adapted from Meyer et al. (2024) and Straten et al. (2002). These items were: “Most healthcare organizations are trustworthy,” “Most healthcare organizations have patients’ best interests in mind,” and “Most healthcare organizations provide high-quality care.”

Healthcare Provider Status. Healthcare provider status, adapted from Andersen (1995), was assessed with a multiple-choice question asking participants whether they have a usual place for healthcare (e.g., doctor’s office or clinic).

Healthcare Access. Healthcare access, adapted from Andersen (1995), was assessed with a multiple-choice question asking participants whether they have the means (e.g., transportation or money) to access healthcare.

Health Insurance Status. Health insurance status, adapted from Park et al. (2023), was captured with a multiple-choice question asking participants to indicate their insurance type (e.g., employer-based, government insurance, or no insurance).

Health Status. Health status, adapted from Andersen (1995), was measured with a multiple-choice question asking participants to rate their current health (e.g., poor, fair, or excellent).

Quality of Life. Quality of life, adapted from Andersen (1995), was assessed by asking participants to rate their overall quality of life (e.g., poor, fair, or excellent).

Procedure and Participants

Study 2 followed the same procedure as Study 1, including participant recruitment through Prolific and the same consent, pre-exposure measures, and random assignment of conditions. Study 2 had five conditions (four experimental conditions and one control condition). A total of 1100 participants were recruited through Prolific to ensure at least 179 participants per condition for Conditions 1, 3, 4 and 250-300 for Condition 2 (as discussed in Pre-Test section). The same screening requirements were applied as in Study 1. Prolific estimated maximum completion time at 56 minutes (based on a 15-minute study duration), leading to the removal of five participants who exceeded this limit. The final sample size was 1058 (188-196 per condition for Conditions 1, 3, 4 and 286 for Condition 2). Average completion time was 14 minutes and 50 seconds. Study 2 included the same debriefing statement as Study 1.

The average age of participants was 41.2 years ($SD = 13.16$), with ages ranging from 18 to 82. In terms of gender distribution, 401 participants identified as male (37.9%), 644 identified as female (60.9%), and 13 identified as another gender or did not

provide a response (0.7%). Regarding educational attainment, 10 participants (0.9%) had completed some high school or less, 136 (12.9%) had earned a high school diploma or GED, and 197 (18.6%) had attended some college but did not obtain a degree. Additionally, 126 participants (11.9%) held an associate's or technical degree, 388 (36.7%) had a bachelor's degree, and 201 (19%) had completed a graduate or professional degree.

Story Quality and Manipulation Measures

All conditions demonstrated strong perceived realism ($M_s = 5.72\text{-}6.10$) and credibility ($M_s = 5.85\text{-}6.24$), with means well above the threshold of 4.0 on 7-point scales. The reliability of the two-item credibility scale was good ($\alpha = 0.752$). High-narrativity stories ($M = 6.37$, $SD = 0.67$, $n = 482$) rated significantly higher than low-narrativity stories ($M = 5.50$, $SD = 1.27$, $n = 381$) on the narrativity manipulation scale, $t(545.83) = 12.17$, $p < .001$, $d = 0.89$. For conditions with characters present, participants correctly identified character presence at 96.8% for Condition 3 and 99% for Condition 1. For conditions with characters absent, the results were 73% for Condition 2 (high narrativity, character absent) and 83.4% for Condition 4 (low narrativity, character absent).

Results

As in Study 1, Study 2 uses structural equation modeling (SEM) using the *Lavaan* package (Rosseel, 2012) in *R* (R Core Team, 2024). Multiple models were examined: measurement models to validate moderators, mediators, and dependent variables, and structural models to test hypotheses, based on Kline's (2016) recommended two-step

process. Evaluation of the overall fit of models was based on the criteria from Little (2013) and Hu and Bentler (1999).

All Study 2 latent variable models demonstrated acceptable to good fit (Hu & Bentler, 1999; Little, 2013). The primary model examining narrativity effects on ad effectiveness (H6e-f) showed good fit with 1058 observations, 69 freely estimated parameters, and 198 degrees of freedom (elements = 267, calculated as $p(p+1)/2$ where $p = 23$ observed variables): $\chi^2(198) = 725.9$, $p < .001$, CFI = .976, TLI = .973, RMSEA = .050, SRMR = .034. The model examining character presence effects (H7a-d, H8a-b) demonstrated good fit with 863 observations, 81 freely estimated parameters, and 222 degrees of freedom (elements = 303, calculated as $p(p+1)/2$ where $p = 24 + \sqrt{1}$ observed variables): CFI = .969, TLI = .964, RMSEA = .057, SRMR = .046. The model testing narrativity and character presence interactions (H9a-b) showed good fit with 1058 observations, 74 freely estimated parameters, and 240 degrees of freedom (elements = 314, calculated as $p(p+1)/2$ where $p = 25$ observed variables): CFI = .974, TLI = .971, RMSEA = .049, SRMR = .034. For hypotheses involving specific observed variables rather than latent constructs, regression analyses with parameter comparison tests were used to directly evaluate the relative strengths of effects. For moderation analyses (H10-H14), a focused analytical approach examined each moderator separately to avoid multicollinearity issues and more clearly test the interaction hypotheses.

Table 15 presents descriptive statistics for the key outcome variables in Study 2. Transportation, identification, and emotional responses all showed similar distributions with means of approximately 5.5 on a 7-point scale (transportation: $M = 5.59$, $SD = 0.94$; identification: $M = 5.48$, $SD = 0.96$; emotional responses: $M = 5.51$, $SD = 1.15$). These

relatively positive evaluations reflect the generally favorable responses to the stimuli across experimental conditions. Ad effectiveness showed a similarly positive distribution ($M = 5.66$, $SD = 0.92$), while resistance processes showed lower mean values (counter-arguing: $M = 2.84$, $SD = 1.40$; persuasion knowledge: $M = 3.45$, $SD = 1.61$), indicating relatively low resistance to the advertising messages.

[Insert Table 15 here]

The distribution of participants across experimental conditions was well-balanced: high narrativity with character present (Condition 1: $n = 196$, 18.5%), high narrativity with character absent (Condition 2: $n = 286$, 27.0%), low narrativity with character present (Condition 3: $n = 188$, 17.8%), low narrativity with character absent (Condition 4: $n = 193$, 18.2%), and control condition (Condition 5: $n = 195$, 18.4%).

Measurement models were used to validate the psychometric properties of the constructs used in Study 2. Separate confirmatory factor analyses (CFAs) were conducted for each group of constructs (control and moderator variables, mediators, and dependent variables) to isolate and address potential measurement issues within each conceptual domain. This analysis employed robust maximum likelihood estimation (MLR).

Modifications made to measurement models in Study 1 were held constant.

The measurement model with moderator variables had 1058 observations and, using the formula $p(p+1)/2$, the model had 300 elements. This model had 100 freely estimated parameters and 224 degrees of freedom. The model showed good model fit ($CFI = 0.966$, $TLI = 0.958$, $RMSEA = 0.04$, $SRMR = 0.036$). This meets the (Hu & Bentler, 1999) standard. This analysis included the following latent variables: transportability, trait empathy, healthcare attitude, healthcare access, familiarity, threat

severity, perceived message credibility, and attention. The measurement model with mediator variables had 863 observations and, using the formula $p(p+1)/2$, the model had 378 elements. This model had 112 freely estimated parameters and 293 degrees of freedom. The model showed acceptable model fit ($CFI = 0.952$, $TLI = 0.943$, $RMSEA = 0.056$, $SRMR = 0.049$). This meets the Little (2013) standard. This analysis included the following latent variables: transportation, identification, eudaimonic symbolism, perceived similarity, emotional response, and affective forecasting from Study 1 and counter-arguing and persuasion knowledge. This analysis was done only on the experimental conditions because participants in the control condition did not answer these measures. The measurement model with dependent variables had 1058 observations and, using the formula $p(p+1)/2$, the model had 171 elements. This model had 59 freely estimated parameters and 130 degrees of freedom. The model showed acceptable model fit ($CFI = 0.977$, $TLI = 0.973$, $RMSEA = 0.061$, $SRMR = 0.04$). This meets the Little (2013) standard. This analysis included the following latent variables: brand beliefs, attitude toward the brand, intentions-self, intentions-other, trust, and the second-order latent variable ad effectiveness.

Hypothesis Testing

Imaginable Plot Effects (H6). Hypotheses H6a-d predicted that high narrativity would positively affect various narrative engagement processes. Table 16 presents the results of these tests.

[Insert Table 16 here]

Hypothesis H6a predicted that high narrativity would lead to increased transportation compared to low narrativity. This hypothesis was supported. Stories with

high narrativity significantly increased transportation compared to stories with low narrativity ($\beta = 0.180$, SE = 0.073, p = 0.014, standardized $\beta = 0.093$). The standardized coefficient suggests a small effect size according to Cohen's guidelines.

Hypothesis H6b predicted that high narrativity would lead to reduced counter-arguing compared to low narrativity. This hypothesis was partially supported. Although the effect was in the expected direction, it only reached marginal significance ($\beta = -0.170$, SE = 0.093, p = 0.068, standardized $\beta = -0.066$). The effect size was negligible (standardized $\beta < 0.10$).

Hypothesis H6c predicted that high narrativity would lead to increased emotional responses compared to low narrativity. This hypothesis was partially supported. The effect was in the expected direction but only reached marginal significance ($\beta = 0.135$, SE = 0.072, p = 0.060, standardized $\beta = 0.069$). The effect size was negligible (standardized $\beta < 0.10$).

Hypothesis H6d predicted that high narrativity would lead to increased message credibility compared to low narrativity. This hypothesis was not supported. The effect, while in the expected direction, was not statistically significant ($\beta = 0.055$, SE = 0.041, p = 0.178, standardized $\beta = 0.050$). The effect size was negligible.

Overall, these results provide partial support for the narrative structure effects on engagement processes. High narrativity showed the strongest and most significant effect on transportation, with smaller and marginally significant effects on counter-arguing and emotional responses, and a non-significant effect on message credibility.

Plot Effects on Ad effectiveness. Hypotheses H6e and H6f predicted that both high and low narrativity would have stronger effects on ad effectiveness compared to the control condition. Table 17 presents the results of these tests.

[Insert Table 17 here]

Hypothesis H6e, which predicted that high narrativity would have a stronger effect on ad effectiveness than the control condition, was supported. High narrativity significantly enhanced ad effectiveness compared to the control condition ($\beta = 0.226$, SE = 0.062, $p < 0.001$, standardized $\beta = 0.166$). This represents a small effect size according to Cohen's guidelines.

Hypothesis H6f, which predicted that low narrativity would have a stronger effect on ad effectiveness than the control condition, was also supported. Low narrativity significantly enhanced ad effectiveness compared to the control condition ($\beta = 0.154$, SE = 0.063, $p = 0.015$, standardized $\beta = 0.109$). This also represents a small effect size.

A follow-up comparison between high and low narrativity conditions revealed that high narrativity produced a somewhat stronger effect on ad effectiveness than low narrativity, though this difference was not statistically tested in the formal hypotheses. The model explained 1.5% of the variance in ad effectiveness ($R^2 = 0.015$).

[Insert Figure 5 here]

Figure 5 illustrates the effects of high narrativity, low narrativity, and control conditions on ad effectiveness, highlighting the significant advantage of narrative structure over non-narrative content, with high narrativity showing the strongest effect.

These findings suggest that while any level of narrative structure enhances ad effectiveness compared to non-narrative content, high narrativity with clear temporal and

causal sequences tends to produce stronger effects. This supports the theoretical proposition that well-structured narratives facilitate more effective processing of healthcare messages, even when the effect sizes are modest.

Identifiable Character Effects (H7). Hypotheses H7a-d predicted that character presence would have positive effects on various aspects of narrative engagement. Table 18 presents the results of these tests.

[Insert Table 18 here]

Hypothesis H7a predicted that character presence would lead to increased transportation compared to character absence. This hypothesis was supported. Stories with identifiable characters significantly increased transportation compared to stories without identifiable characters ($\beta = 0.159$, SE = 0.034, $p < 0.001$, standardized $\beta = 0.159$). The standardized coefficient indicates a small effect size.

Hypothesis H7b predicted that character presence would lead to increased identification compared to character absence. This hypothesis was supported. Character presence significantly enhanced identification ($\beta = 0.151$, SE = 0.035, $p < 0.001$, standardized $\beta = 0.151$), representing a small effect size.

Hypothesis H7c predicted that character presence would lead to increased perceived similarity compared to character absence. This hypothesis was supported. Character presence significantly enhanced perceived similarity ($\beta = 0.167$, SE = 0.034, $p < 0.001$, standardized $\beta = 0.167$), representing a small effect size.

Hypothesis H7d predicted that character presence would lead to increased emotional responses compared to character absence. This hypothesis was supported.

Character presence significantly enhanced emotional responses ($\beta = 0.146$, SE = 0.034, $p < 0.001$, standardized $\beta = 0.146$), representing a small effect size.

These results consistently demonstrate that the presence of an identifiable character in healthcare narratives enhances multiple dimensions of narrative engagement. Although all effects were small in magnitude, they were highly significant and consistent across all four engagement variables.

Character Effects on Ad effectiveness. Hypotheses H7e and H7f predicted that both character presence and character absence would have stronger effects on ad effectiveness compared to the control condition. Table 19 presents the results of these tests.

[Insert Table 19 here]

Hypothesis H7e, which predicted that character presence would lead to increased ad effectiveness compared to the control condition, was supported. Stories with identifiable characters significantly enhanced ad effectiveness compared to non-narrative control content ($\beta = 0.223$, SE = 0.063, $p < 0.001$, standardized $\beta = 0.157$). This represents a small effect size.

Hypothesis H7f, which predicted that character absence would lead to increased ad effectiveness compared to the control condition, was also supported. Stories without identifiable characters significantly enhanced ad effectiveness compared to non-narrative control content ($\beta = 0.172$, SE = 0.062, $p = 0.005$, standardized $\beta = 0.126$). This also represents a small effect size.

A follow-up comparison between character presence and character absence conditions revealed that the difference between these conditions was not statistically

significant (difference = 0.050, $z = 0.570$, $p = 0.568$). This suggests that while both narrative conditions enhanced ad effectiveness compared to non-narrative content, the mere presence of an identifiable character did not significantly increase this effect beyond the narrative structure itself. The model explained 1.3% of the variance in ad effectiveness ($R^2 = 0.013$).

[Insert Figure 6 here]

Figure 6 illustrates the effects of character presence, character absence, and control conditions on ad effectiveness, highlighting the significant advantages of both narrative conditions over non-narrative content.

Mediation Analyses (H8). Hypotheses H8a and H8b predicted that transportation and identification would mediate the relationship between character presence and ad effectiveness. To address potential multicollinearity between transportation and identification (which were moderately correlated), separate mediation models were tested for each mediator. Table 20 presents the results of these mediation analyses.

[Insert Table 20 here]

Transportation. Hypothesis H8a predicted that transportation would mediate the effect of character presence on ad effectiveness. This hypothesis was supported. The analysis revealed a significant positive indirect effect of character presence on ad effectiveness through transportation ($\beta = 0.116$, $SE = 0.028$, $p < 0.001$, 95% CI [0.061, 0.170]). The path from character presence to transportation was significant ($\beta = 0.159$, $SE = 0.034$, $p < 0.001$, standardized $\beta = 0.159$), as was the path from transportation to ad effectiveness ($\beta = 0.540$, $SE = 0.035$, $p < 0.001$, standardized $\beta = 0.540$). The direct effect of character presence on ad effectiveness was not significant ($\beta = -0.048$, $SE = 0.032$, $p =$

0.131, standardized $\beta = -0.034$), suggesting full mediation. The transportation-only mediation model explained 28.6% of the variance in ad effectiveness ($R^2 = 0.286$).

Identification. Hypothesis H8b predicted that identification would mediate the effect of character presence on ad effectiveness. This hypothesis was supported. The analysis revealed a significant positive indirect effect of character presence on ad effectiveness through identification ($\beta = 0.104$, SE = 0.028, $p < 0.001$, 95% CI [0.049, 0.160]). The path from character presence to identification was significant ($\beta = 0.149$, SE = 0.035, $p < 0.001$, standardized $\beta = 0.149$), as was the path from identification to ad effectiveness ($\beta = 0.521$, SE = 0.039, $p < 0.001$, standardized $\beta = 0.521$). The direct effect of character presence on ad effectiveness was not significant ($\beta = -0.040$, SE = 0.032, $p = 0.217$, standardized $\beta = -0.029$), suggesting full mediation. The identification-only mediation model explained 26.7% of the variance in ad effectiveness ($R^2 = 0.267$).

[Insert Figure 7 here]

Figure 7 illustrates the mediation pathways, showing standardized path coefficients for both transportation and identification as mediators between character presence and ad effectiveness.

These findings demonstrate that both transportation and identification serve as significant mediators through which character presence influences ad effectiveness. The indirect effects are very similar in magnitude, suggesting that both narrative engagement processes play important roles in the persuasive impact of characters in healthcare narratives. The negligible direct effects in both models indicate that the impact of character presence on ad effectiveness operates almost entirely through these narrative engagement processes rather than directly.

Interaction Effects (H9). Hypotheses H9a and H9b predicted that plot structure and character presence would interact, such that stories with high narrativity and character present (Condition 1) would produce the highest levels of transportation (H9a) and ad effectiveness (H9b). Table 21 presents the results of these interaction tests.

[Insert Table 21 here]

Hypothesis H9a predicted that Condition 1 (high narrativity, character present) would produce higher transportation than all other experimental conditions. This hypothesis was partially supported. Condition 1 showed significantly higher transportation compared to Condition 2 (high narrativity, character absent; difference = 0.253, SE = 0.090, p = 0.005, std. β = 0.092) and Condition 4 (low narrativity, character absent; difference = 0.556, SE = 0.108, p < 0.001, std. β = 0.237), but did not show significantly higher transportation compared to Condition 3 (low narrativity, character present; difference = 0.124, SE = 0.097, p = 0.199, std. β = 0.056). The effect sizes were small (std. β < 0.25).

Hypothesis H9b predicted that Condition 1 (high narrativity, character present) would produce higher ad effectiveness than all other conditions, including the control. This hypothesis was partially supported. Condition 1 showed significantly higher ad effectiveness compared to Condition 4 (low narrativity, character absent; difference = 0.135, SE = 0.072, p = 0.031, std. β = 0.084) and the control condition (difference = 0.251, SE = 0.062, p < 0.001, std. β = 0.144). However, Condition 1 did not show significantly higher ad effectiveness compared to Condition 2 (high narrativity, character absent; difference = 0.041, SE = 0.064, p = 0.515, std. β = 0.019) or Condition 3 (low

narrativity, character present; difference = 0.058, SE = 0.069, p = 0.402, std. β = 0.037).

All effect sizes were small (std. β < 0.25).

Overall, these results provide partial support for the hypothesized interaction between plot structure and character presence. While the combination of high narrativity and character presence (Condition 1) showed advantages in transportation and ad effectiveness compared to some conditions, it did not consistently outperform all alternatives. This suggests that narrativity and character presence may function more as complementary than purely synergistic elements.

[Insert Figure 8 here]

Figure 8 illustrates the interaction effects of narrativity and character presence on transportation and ad effectiveness. The figure highlights how the combination of high narrativity and character presence produced the strongest transportation effects, particularly compared to low narrativity, character-absent stories. For ad effectiveness, all experimental conditions outperformed the control, with Condition 1 showing the strongest effect, though differences between experimental conditions were smaller.

Individual Difference Moderators (H10). Hypotheses H10a-h predicted that individual differences would moderate the effects of narrativity and character presence on transportation and identification. Table 22 summarizes the results of the moderation analyses for transportation.

[Insert Table 22 here]

Hypotheses H10a-d predicted that individual differences would moderate the effects of narrativity and character presence on transportation. None of these hypotheses were supported. Neither familiarity (H10a: high narrativity interaction β = -0.014, p =

0.735; character presence interaction $\beta = 0.059$, $p = 0.145$), attention (H10b: high narrativity interaction $\beta = -0.059$, $p = 0.248$; character presence interaction $\beta = -0.038$, $p = 0.406$), transportability (H10c: high narrativity interaction $\beta = -0.010$, $p = 0.815$; character presence interaction $\beta = 0.019$, $p = 0.635$), nor trait empathy (H10d: high narrativity interaction $\beta = -0.030$, $p = 0.483$; character presence interaction $\beta = -0.010$, $p = 0.806$) significantly moderated the effects of narrativity or character presence on transportation. Effect sizes for all interactions were negligible ($\text{std.}\beta < 0.10$).

Table 23 summarizes the results of the moderation analyses for identification.

[Insert Table 23 here]

Hypotheses H10e-h predicted that individual differences would moderate the effects of narrativity and character presence on identification. None of these hypotheses were supported. Neither familiarity (H10e: high narrativity interaction $\beta = 0.017$, $p = 0.674$; character presence interaction $\beta = 0.046$, $p = 0.246$), attention (H10f: high narrativity interaction $\beta = -0.010$, $p = 0.842$; character presence interaction $\beta = -0.030$, $p = 0.502$), transportability (H10g: high narrativity interaction $\beta = 0.021$, $p = 0.619$; character presence interaction $\beta = 0.004$, $p = 0.924$), nor trait empathy (H10h: high narrativity interaction $\beta = -0.045$, $p = 0.228$; character presence interaction $\beta = -0.001$, $p = 0.970$) significantly moderated the effects of narrativity or character presence on identification. Effect sizes for all interactions were negligible ($\text{std.}\beta < 0.10$).

The R-squared values for the moderation models ranged from 0.075 to 0.329, indicating that the models explained between 7.5% and 32.9% of the variance in the dependent variables. Models including trait empathy explained the most variance both for transportation ($R^2 = 0.266$) and identification ($R^2 = 0.329$), suggesting that trait empathy

is an important predictor of narrative engagement regardless of its non-significant moderating role.

[Insert Figure 9 here]

Figure 9 illustrates the non-significant moderating effects of individual differences on the relationship between story elements and engagement processes. The figure shows relatively parallel lines for high and low levels of the moderator variables, visually confirming the lack of significant interaction effects.

Threat Severity Moderators (H11). Hypotheses H11a-d predicted that threat severity would moderate the effects of narrativity and character presence on transportation and identification. Table 24 presents the results of these moderation analyses.

[Insert Table 24 here]

Hypothesis H11a, which predicted that threat severity would moderate the effect of narrativity on transportation, was not supported ($\beta = -0.070$, SE = 0.129, $p = 0.589$, std. $\beta = -0.023$). Hypothesis H11b, which predicted that threat severity would moderate the effect of character presence on transportation, was also not supported ($\beta = 0.006$, SE = 0.128, $p = 0.960$, std. $\beta = 0.002$).

Hypothesis H11c, which predicted that threat severity would moderate the effect of narrativity on identification, was not supported ($\beta = 0.003$, SE = 0.161, $p = 0.988$, std. $\beta = 0.001$). Hypothesis H11d, which predicted that threat severity would moderate the effect of character presence on identification, was also not supported ($\beta = -0.177$, SE = 0.158, $p = 0.262$, std. $\beta = -0.046$).

The R-squared values for the threat severity moderation models were 0.115 for transportation and 0.090 for identification, indicating that the models explained 11.5% and 9.0% of the variance in these variables, respectively.

These findings indicate that the effects of narrativity and character presence on transportation and identification were consistent across different levels of perceived threat severity. This suggests that narrative engagement processes in healthcare advertising may operate independently of the perceived severity of the health threat.

[Insert Figure 10 here]

Figure 10 displays the non-significant moderating effects of threat severity on narrative engagement processes. The figure shows relatively parallel lines for high and low levels of threat severity, visually confirming the lack of significant interaction effects.

In summary, the analyses of interaction effects revealed partial support for the hypothesized synergistic effects of narrativity and character presence, with Condition 1 showing advantages in transportation and ad effectiveness compared to some, but not all, other conditions. The analyses of individual differences and threat severity as moderators revealed no significant moderation effects, suggesting that the influence of narrativity and character presence on narrative engagement processes operates consistently across different consumer characteristics and perceptions of threat severity.

Effects on Resistance Processes (H12). Hypotheses H12a-f predicted specific relationships between narrative engagement processes (transportation and identification) and resistance mechanisms (counter-arguing and persuasion knowledge activation). Table 25 presents the results of these tests.

[Insert Table 25 here]

Hypothesis H12a, which predicted that transportation would reduce counter-arguing, was supported ($\beta = -0.755$, SE = 0.217, $p < .001$, std. $\beta = -0.568$). The standardized coefficient indicates a large effect size, with transportation explaining approximately 13% of the variance in counter-arguing. Higher levels of transportation were associated with significantly lower levels of counter-arguing, suggesting that immersion in the narrative world inhibits critical processing of message claims.

Hypothesis H12b, which predicted that transportation would reduce persuasion knowledge activation, was also supported ($\beta = -0.424$, SE = 0.213, $p = .047$, std. $\beta = -0.286$). This represents a small effect size, with transportation explaining approximately 4% of the variance in persuasion knowledge activation. The negative relationship indicates that greater transportation is associated with reduced awareness of persuasive intent.

Contrary to expectations, Hypothesis H12c, which predicted that identification would reduce counter-arguing, was not supported ($\beta = 0.262$, SE = 0.171, $p = .126$, std. $\beta = 0.242$). The coefficient was in the opposite direction than hypothesized, suggesting a possible tendency (though non-significant) for identification to increase rather than decrease counter-arguing. Similarly, Hypothesis H12d, which predicted that identification would reduce persuasion knowledge activation, was not supported ($\beta = 0.126$, SE = 0.173, $p = .466$, std. $\beta = 0.104$).

Hypothesis H12e predicted that identification would have a stronger negative effect on counter-arguing than transportation. This hypothesis was not supported. In fact, a significant effect in the opposite direction was observed ($\beta = 1.017$, SE = 0.384, $p =$

.008, std. β = 0.810). Transportation had a significantly stronger negative effect on counter-arguing than identification. Similarly, Hypothesis H12f, which predicted that identification would have a stronger negative effect on persuasion knowledge activation than transportation, was not supported (β = 0.550, SE = 0.382, p = .150, std. β = 0.391).

These findings reveal an unexpected pattern: While transportation significantly reduces resistance processes as theorized, identification does not. Moreover, transportation's effects on reducing resistance are significantly stronger than identification's effects, directly contradicting the hypothesis that identification would be the more potent mechanism for resistance reduction. This pattern suggests that the immersive quality of transportation may be more effective at suppressing analytical processing than the character connection facilitated by identification.

[Insert Figure 11 here]

Figure 11 illustrates the differential effects of transportation and identification on resistance processes. The divergent patterns highlight how these two facets of narrative engagement function differently in relation to resistance mechanisms, with transportation showing the expected negative relationship with both counter-arguing and persuasion knowledge activation, while identification shows non-significant positive relationships with both resistance processes.

Plot Effects on Resistance. Hypotheses H12g-i predicted that high narrativity would reduce resistance processes compared to low narrativity. Table 26 presents the results of these tests.

[Insert Table 26 here]

Hypothesis H12g, which predicted that high narrativity would reduce counter-arguing more than low narrativity, was not supported at the conventional significance level, though a marginally significant effect in the expected direction was observed ($\beta = -0.170$, SE = 0.093, $p = .071$, std. $\beta = -0.065$). The negative coefficient suggests that high narrativity stories tend to reduce counter-arguing compared to low narrativity stories, though the effect size is negligible.

Hypothesis H12h, which predicted that high narrativity would reduce persuasion knowledge activation more than low narrativity, was not supported ($\beta = -0.031$, SE = 0.102, $p = .375$, std. $\beta = -0.031$). While the coefficient was in the expected negative direction, the effect was not statistically significant, and the effect size was negligible.

Hypothesis H12i predicted that the combination of high narrativity and character presence would reduce counter-arguing more than the combination of low narrativity and character presence. This hypothesis was not supported. Contrary to expectations, a marginally significant interaction effect was observed in the opposite direction ($\beta = 0.118$, SE = 0.189, $p = .057$, std. $\beta = 0.118$), suggesting that the combination of high narrativity and character presence might actually increase rather than decrease counter-arguing compared to the combination of low narrativity and character presence. This finding contradicts the expectation that story elements would work synergistically to reduce resistance.

Overall, these analyses indicate that while transportation significantly reduces resistance processes, the structural elements that influence transportation (high narrativity and character presence) show more complex and sometimes contrary effects on resistance mechanisms than initially hypothesized.

Effects on Emotional Responses and Ad Effectiveness (H13a-e). Hypotheses

H13a-e predicted specific relationships between narrative engagement processes

(transportation and identification) and key outcomes (emotional responses and ad

effectiveness). Table 27 presents the results of these tests.

[Insert Table 27 here]

Hypothesis H13a, which predicted that transportation would increase emotional responses, was supported ($\beta = 0.273$, SE = 0.138, $p = .047$, std. $\beta = 0.269$). This represents a small effect size, indicating that transportation positively influences emotional engagement with patient stories.

Hypothesis H13b, which predicted that identification would increase emotional responses, was also supported ($\beta = 0.441$, SE = 0.116, $p < .001$, std. $\beta = 0.530$). The standardized coefficient indicates a large effect size, suggesting that identification with characters has a particularly strong influence on emotional responses to patient stories. Together, transportation and identification explained approximately 61% of the variance in emotional responses ($R^2 = 0.613$).

Hypothesis H13c, which predicted that transportation would increase ad effectiveness, was supported ($\beta = 0.217$, SE = 0.097, $p = .024$, std. $\beta = 0.309$). The standardized coefficient indicates a medium effect size, demonstrating transportation's substantial influence on overall ad effectiveness.

Hypothesis H13d, which predicted that identification would increase ad effectiveness, was not supported at the conventional significance level, though the effect approached significance ($\beta = 0.140$, SE = 0.080, $p = .080$, std. $\beta = 0.245$). The standardized coefficient indicates a small effect size. Together, transportation and

identification explained approximately 29% of the variance in ad effectiveness ($R^2 = 0.293$).

Hypothesis H13e predicted that identification would have a stronger positive effect on ad effectiveness than transportation. This hypothesis was not supported ($\beta = -0.077$, $SE = 0.174$, $p = .659$). The difference between the effects of identification and transportation on ad effectiveness was not statistically significant, though the negative coefficient suggests that transportation's effect might actually be slightly stronger than identification's effect.

[Insert Figure 12 here]

Figure 12 displays the differential effects of transportation and identification on emotional responses and ad effectiveness. The visualization highlights how identification has a particularly strong effect on emotional responses, while transportation shows a more balanced influence across both outcome variables.

These findings reveal an interesting pattern in how narrative engagement influences persuasive outcomes. Both transportation and identification significantly enhance emotional responses, with identification showing a notably stronger effect. However, when it comes to overall ad effectiveness, transportation demonstrates a more robust and significant direct effect. This suggests that while identification primarily enhances the emotional dimension of narrative engagement, transportation may have broader persuasive impact across multiple dimensions of ad effectiveness.

Healthcare Involvement Moderators. Hypotheses H14a-l predicted that healthcare involvement variables would moderate the relationships between narrative engagement (transportation and identification) and ad effectiveness. We tested six

healthcare moderators for each narrative engagement process: healthcare attitudes, healthcare access, provider status, insurance status, health status, and quality of life.

Tables 28 and 29 present the results of these analyses.

Healthcare Moderators of Transportation Effects. Hypothesis H14a predicted that healthcare attitudes would moderate the relationship between transportation and ad effectiveness. This hypothesis was supported ($\beta = -0.066$, SE = 0.016, $p < .001$, std. $\beta = -0.145$). The significant negative interaction indicates that the effect of transportation on ad effectiveness was stronger for individuals with less positive healthcare attitudes. This represents a small but meaningful effect, with the interaction explaining a portion of the variance in ad effectiveness ($R^2 = 0.462$).

Hypothesis H14b predicted that healthcare access would moderate the relationship between transportation and ad effectiveness. This hypothesis was not supported ($\beta = -0.015$, SE = 0.022, $p = .497$, std. $\beta = -0.033$). The interaction effect was negligible in magnitude and not statistically significant.

Hypothesis H14c predicted that provider status would moderate the relationship between transportation and ad effectiveness. This hypothesis was supported. Specifically, the moderation effect was significant for participants with “other” provider status compared to those with a regular provider ($\beta = -0.174$, SE = 0.071, $p < .001$, std. $\beta = -0.038$). Although statistically significant, the standardized coefficient indicates a negligible effect size.

[Insert Table 28 here]

Hypothesis H14d predicted that insurance status would moderate the relationship between transportation and ad effectiveness. This hypothesis was not supported. None of the insurance status categories showed significant moderation effects (all $p > .05$).

Hypothesis H14e predicted that health status would moderate the relationship between transportation and ad effectiveness. This hypothesis was not supported ($\beta = -0.019$, $SE = 0.026$, $p = .471$, $std.\beta = -0.019$). The interaction effect was negligible and not statistically significant.

Hypothesis H14f predicted that quality of life would moderate the relationship between transportation and ad effectiveness. This hypothesis was not supported ($\beta = -0.024$, $SE = 0.025$, $p = .352$, $std.\beta = -0.024$). The interaction effect was negligible and not statistically significant.

[Insert Figure 13 here]

Figure 13 illustrates the significant moderating effect of healthcare attitudes on the transportation-ad effectiveness relationship. As shown in the figure, transportation had a stronger positive effect on ad effectiveness for individuals with less positive healthcare attitudes (depicted by the steeper slope for the low healthcare attitude line) compared to those with more positive healthcare attitudes (depicted by the flatter slope for the high healthcare attitude line).

Healthcare Moderators of Identification Effects. Hypothesis H14g predicted that healthcare attitudes would moderate the relationship between identification and ad effectiveness. This hypothesis was supported ($\beta = -0.057$, $SE = 0.018$, $p = .002$, $std.\beta = -0.124$). Similar to H14a, the significant negative interaction indicates that the effect of identification on ad effectiveness was stronger for individuals with less positive

healthcare attitudes. This represents a small effect, with the model explaining substantial variance in ad effectiveness ($R^2 = 0.437$).

Hypothesis H14h predicted that healthcare access would moderate the relationship between identification and ad effectiveness. This hypothesis was not supported ($\beta = -0.010$, $SE = 0.022$, $p = .664$, $std.\beta = -0.020$). The interaction effect was negligible and not statistically significant.

[Insert Table 29 here]

Hypothesis H14i predicted that provider status would moderate the relationship between identification and ad effectiveness. This hypothesis was not supported ($\beta = -0.014$, $SE = 0.081$, $p = .867$, $std.\beta = -0.009$). The interaction effect was negligible and not statistically significant.

Hypothesis H14j predicted that insurance status would moderate the relationship between identification and ad effectiveness. This hypothesis was not supported ($\beta = 0.000$, $SE = 0.098$, $p = .997$, $std.\beta = 0.000$). The interaction effect was essentially zero.

Hypothesis H14k predicted that health status would moderate the relationship between identification and ad effectiveness. This hypothesis was not supported ($\beta = 0.052$, $SE = 0.034$, $p = .124$, $std.\beta = 0.077$). Although the standardized coefficient approached the threshold for a small effect, it was not statistically significant.

Hypothesis H14l predicted that quality of life would moderate the relationship between identification and ad effectiveness. This hypothesis was not supported ($\beta = -0.013$, $SE = 0.033$, $p = .686$, $std.\beta = -0.020$). The interaction effect was negligible and not statistically significant.

[Insert Figure 14 here]

Figure 14 illustrates the significant moderating effect of healthcare attitudes on the identification-ad effectiveness relationship. The pattern mirrors that observed for transportation, with identification having a stronger positive effect on ad effectiveness for individuals with less positive healthcare attitudes compared to those with more positive healthcare attitudes.

Summary of Healthcare Moderator Effects. Overall, out of the twelve moderation hypotheses tested (H14a-l), only three were supported: healthcare attitudes moderated both the transportation and identification pathways (H14a, H14g), and provider status moderated the transportation pathway (H14c). Healthcare attitudes demonstrated the most consistent and meaningful moderation effect, with stronger narrative engagement effects observed for individuals with less positive healthcare attitudes. This pattern suggests that narrative persuasion mechanisms may be particularly effective for consumers who are more skeptical about healthcare.

The models including healthcare attitude moderators explained the most variance in ad effectiveness (43.7% for identification pathway; 46.2% for transportation pathway), substantially more than models with other healthcare moderators (ranging from 27.0% to 35.1%). The other healthcare involvement variables (access, insurance status, health status, and quality of life) did not significantly moderate the relationships between narrative engagement and ad effectiveness, suggesting that these effects are relatively consistent across different healthcare backgrounds and statuses.

The similar pattern of moderation for both transportation and identification pathways (with healthcare attitudes as the primary moderator in both cases) suggests that

consumer characteristics play an important role in how narrative engagement influences persuasive outcomes, regardless of the specific engagement mechanism.

Narrativity and Character Perception (H15 and RQ1). Hypothesis H15 predicted that in the absence of an identifiable character, high narrativity plot structure would lead to increased character perception compared to low narrativity plot structure. This hypothesis was supported. In patient stories without identifiable characters, high narrativity significantly increased the likelihood of character perception (odds ratio = 1.85, 95% CI [1.17, 2.94], $p = 0.009$, standardized $\beta = 0.167$). The odds of perceiving a character were 1.85 times higher in high narrativity conditions compared to low narrativity conditions. The character perception rates were 26.9% in high narrativity conditions and 16.6% in low narrativity conditions.

[Insert Table 30 here]

Table 30 presents the logistic regression results for character perception in exemplar-absent conditions. The analysis revealed a significant positive effect of high narrativity on character perception ($b = 0.617$, $SE = 0.235$, $z = 2.626$, $p = 0.009$). This finding supports the theoretical proposition that narrative structure influences how consumers perceive characters, even when characters are not explicitly presented.

Research Question 1a asked whether high narrativity plot structure is associated with greater character perception in stories without identifiable characters. The same analysis addressing H15 also addressed this research question, demonstrating that high narrativity is indeed significantly associated with increased character perception.

Research Question 1b asked whether the effect of narrativity on character perception differs between stories with and without identifiable characters. The analysis

revealed no significant interaction between narrativity and exemplar presence on character perception ($b = -0.617$, $SE = 1097.815$, $z = -0.0006$, $p = 0.999$). This suggests that the effect of narrativity on character perception does not differ significantly between stories with and without identifiable characters.

Effects of Character Perception (RQ2 and RQ3). Research Question 2 examined the effects of character perception in condition 2 (high narrativity, no identifiable character) on key outcome variables. Table 31 presents the results of these analyses.

[Insert Table 31 here]

As shown in Table 31, character perception had minimal effects on all outcome variables in condition 2, and none of these effects reached statistical significance. For transportation, participants who perceived a character showed slightly higher scores ($M = 5.63$) compared to those who did not perceive a character ($M = 5.51$), but this difference was not significant (mean difference = 0.12, $p = 0.385$, standardized $\beta = 0.052$). Similarly, non-significant differences were observed for identification (mean difference = 0.12, $p = 0.354$, standardized $\beta = 0.055$), similarity (mean difference = 0.05, $p = 0.760$, standardized $\beta = 0.018$), emotional responses (mean difference = -0.04, $p = 0.809$, standardized $\beta = -0.014$), and ad effectiveness (mean difference = 0.05, $p = 0.704$, standardized $\beta = 0.023$).

These results suggest that merely perceiving a character in a story without an explicitly presented character did not significantly enhance narrative engagement or persuasive outcomes.

Research Question 3 asked whether the effects of character perception in Condition 2 (high narrativity, character absent) are comparable to the effects of character presence in Condition 1 (high narrativity, character present). Table 32 presents the comparison results.

[Insert Table 32 here]

Actual character presence (Condition 1) generally showed stronger effects than merely perceiving a character in a character-absent story (Condition 2). The most pronounced difference was observed for emotional responses, where the mean difference between Condition 1 and Condition 2 with character perception was statistically significant (difference = 0.327, 95% CI [0.048, 0.618], $p < 0.05$). For other outcomes, the differences between actual and perceived character effects were not statistically significant, though they consistently trended in the direction of actual character presence showing stronger effects.

This pattern suggests that while actual character presence tends to produce stronger narrative engagement, particularly for emotional responses, the difference compared to perceived character presence may not be substantial enough to reach statistical significance for most outcome variables.

[Insert Figure 15 here]

Figure 15 illustrates the comparison between actual character presence (Condition 1), perceived character presence in character-absent stories (Condition 2 with perception), and no character perception in character-absent stories (Condition 2 without perception) across key outcome variables.

Individual Differences and Character Perception (RQ4). Research Question 4 asked how individual differences and healthcare involvement influence perceived character presence in stories without identifiable characters. Two logistic regression models were fitted to predict character perception: one focusing on individual differences (transportability, trait empathy, familiarity, attention) and another focusing on healthcare involvement variables (healthcare attitude, access, provider status, insurance status, health status, quality of life).

[Insert Table 33 here]

Table 33 presents the results of the individual differences model. The model had limited explanatory power (Pseudo-R² = 0.032, AUC = 0.625). Among the individual difference variables, only attention emerged as a significant predictor of character perception (odds ratio = 0.76, 95% CI [0.61, 0.95], p = 0.013). Surprisingly, the relationship was negative, indicating that for each standard deviation increase in attention, the odds of perceiving a character decreased by 24%. High narrativity remained a significant predictor in this model (odds ratio = 1.94, 95% CI [1.22, 3.14], p = 0.006), consistent with the findings for H15.

[Insert Table 34 here]

Table 34 presents the results of the healthcare involvement model, which had somewhat better explanatory power (Pseudo-R² = 0.078, AUC = 0.683). Among the healthcare variables, significant predictors included certain insurance status categories (Insurance Status 4: odds ratio = 4.11, 95% CI [1.39, 12.11], p = 0.01; Insurance Status 8: odds ratio = 12.31, 95% CI [1.62, 93.79], p = 0.015) and Quality of Life category 2 (odds

ratio = 0.29, 95% CI [0.08, 0.97], p = 0.045). High narrativity remained a significant predictor in this model (odds ratio = 1.85, 95% CI [1.14, 3.01], p = 0.013).

The limited explanatory power of both models suggests that character perception in character-absent narratives may be driven by factors not measured in this study, beyond the structural element of narrativity.

Mediation Analysis for Character Perception (RQ5). Research Question 5 asked whether character perception mediates the relationship between plot structure and ad effectiveness in character-absent conditions. Because all participants within each condition have the same narrativity level, we analyzed the direct relationship between character perception and ad effectiveness within each narrativity condition.

[Insert Table 35 here]

As shown in Table 35, in Condition 2 (high narrativity, no identifiable character) (RQ5a), character perception did not significantly predict ad effectiveness ($b = 0.049$, 95% CI [-0.201, 0.298], p = 0.704). Similarly, in Condition 4 (low narrativity, no identifiable character) (RQ5b), character perception did not significantly predict ad effectiveness ($b = -0.125$, 95% CI [-0.502, 0.252], p = 0.517).

These results indicate that character perception does not function as a mediator between plot structure and ad effectiveness in character-absent conditions. Even though high narrativity increased the likelihood of character perception (as shown in H15), this perception did not translate into meaningful differences in ad effectiveness.

Summary of Character Perception Findings. The analyses of character perception revealed several key insights. First, high narrativity significantly increased the likelihood of character perception in stories without identifiable characters (H15

supported), with 26.9% of participants in high narrativity conditions reporting character perception compared to 16.6% in low narrativity conditions. This suggests that well-structured plots may facilitate the mental construction of characters even when none are explicitly presented.

However, this increased character perception did not translate into enhanced narrative engagement or persuasive outcomes (RQ2). Participants who perceived a character in character-absent stories did not show significantly higher transportation, identification, similarity, emotional responses, or ad effectiveness compared to those who did not perceive a character.

Comparing the effects of actual character presence versus perceived character presence (RQ3), we found that actual character presence generally produced stronger effects, particularly for emotional responses where the difference was statistically significant. This suggests that while narrative structure can facilitate character perception, explicitly presented characters may be more effective at enhancing narrative engagement, especially emotional responses.

The examination of individual differences and healthcare involvement as predictors of character perception (RQ4) revealed limited explanatory power, with only attention (negative relationship), certain insurance status categories, and one quality of life category emerging as significant predictors alongside high narrativity. This suggests that character perception in character-absent narratives may be influenced by a complex array of factors beyond those measured in this study.

Finally, the mediation analysis (RQ5) showed that character perception did not mediate the relationship between plot structure and ad effectiveness in character-absent

conditions, as character perception did not significantly predict ad effectiveness in either high or low narrativity conditions.

These findings challenge assumptions about the role of perceived characters in narrative processing and suggest that while narrative structure can influence character perception, the persuasive impact of such perception may be limited compared to explicitly presented characters.

Summary of Key Findings. The Study 2 analyses revealed several important patterns across hypothesis tests that collectively enhance our understanding of narrative persuasion in healthcare contexts.

Imaginable Plot Effects. High narrativity consistently demonstrated positive effects across outcome measures, significantly enhancing transportation (H6a supported) and advertising effectiveness compared to control (H6e supported). Low narrativity also significantly improved advertising effectiveness compared to control (H6f supported), though with a somewhat smaller effect size ($\beta = 0.109$ vs. $\beta = 0.166$ for high narrativity). The effects of narrativity on counter-arguing (H6b) and emotional responses (H6c) were in the expected directions but reached only marginal significance ($p = 0.068$ and $p = 0.060$, respectively). These findings suggest that narrative structure itself provides persuasive advantages in healthcare communication, with more coherent narratives offering additional benefits for engagement and effectiveness.

Identifiable Character Effects. Character presence significantly enhanced all narrative engagement processes measured: transportation (H7a supported), identification (H7b supported), perceived similarity (H7c supported), and emotional responses (H7d supported). Both character-present and character-absent conditions significantly

improved advertising effectiveness compared to the control condition (H7e and H7f supported), with character presence showing a slightly stronger effect ($\beta = 0.157$ vs. $\beta = 0.126$). Interestingly, there was no significant difference between character presence and character absence on ad effectiveness (difference = 0.050, $p = 0.568$), suggesting that while characters enhance engagement processes, their presence may not be essential for persuasive outcomes in healthcare narratives.

Mediation Pathways. Both transportation and identification functioned as significant mediators of character presence effects on advertising effectiveness (H8a and H8b supported). The indirect effect through transportation ($\beta = 0.116$, $p < 0.001$) was slightly stronger than the indirect effect through identification ($\beta = 0.104$, $p < 0.001$), and transportation explained slightly more variance in advertising effectiveness ($R^2 = 0.286$ vs. $R^2 = 0.267$). These findings support a dual-process model of narrative persuasion where multiple engagement mechanisms contribute to effectiveness.

Interaction Effects. The expected synergistic effects between narrativity and character presence received limited support. While the combination of high narrativity and character presence (Condition 1) produced the highest transportation levels (H9a partially supported), particularly compared to Condition 4 (low narrativity, no character), the differences from other experimental conditions were often small and not always significant. For advertising effectiveness, Condition 1 significantly outperformed the control condition (H9b partially supported) but did not consistently outperform other experimental conditions. This suggests that story elements may function more as complementary rather than multiplicative factors in healthcare advertising effectiveness.

Individual Difference and Threat Moderators. Surprisingly, none of the individual difference variables (familiarity, attention, transportability, trait empathy) significantly moderated the effects of narrativity or character presence on transportation (H10a-d not supported) or identification (H10e-h not supported). Similarly, threat severity did not significantly moderate the effects on either transportation (H11a-b not supported) or identification (H11c-d not supported). This unexpected finding suggests that narrative engagement processes may operate relatively consistently across different consumer characteristics and perceived threat levels in healthcare contexts.

Resistance Processes. Transportation significantly reduced both counter-arguing (H12a supported) and persuasion knowledge activation (H12b supported), with a particularly strong effect on counter-arguing ($\beta = -0.568$). Contrary to hypotheses, identification did not significantly reduce either counter-arguing (H12c not supported) or persuasion knowledge activation (H12d not supported), and the effect on counter-arguing was actually in the positive direction, though non-significant ($\beta = 0.242$). This pattern directly contradicted the hypothesis that identification would have stronger effects on reducing resistance than transportation (H12e and H12f not supported). These findings suggest that transportation's immersive quality may be more effective at reducing analytical processing of persuasive content than identification's character connection mechanism.

Outcome Effects. Both transportation and identification significantly increased emotional responses (H13a and H13b supported), with identification showing a stronger effect ($\beta = 0.530$ vs. $\beta = 0.269$ for transportation). Transportation significantly increased advertising effectiveness (H13c supported, $\beta = 0.309$), while identification's effect was

smaller and only marginally significant (H13d not supported, $\beta = 0.245$, $p = 0.080$). The hypothesis that identification would have a stronger effect on advertising effectiveness than transportation was not supported (H13e not supported); in fact, the pattern was in the opposite direction. These findings suggest differentiated roles for these engagement processes, with transportation more directly influencing persuasive outcomes and identification primarily enhancing emotional engagement.

Healthcare Involvement Moderators. Healthcare attitude significantly moderated both the transportation pathway (H14a supported) and the identification pathway (H14g supported) to advertising effectiveness. The negative interaction effect indicates that both transportation and identification have stronger effects on advertising effectiveness for individuals with less positive healthcare attitudes. Provider status also significantly moderated the transportation pathway (H14c supported), though with a negligible effect size. Other healthcare variables (access, insurance status, health status, quality of life) did not significantly moderate either pathway. These findings suggest that storytelling approaches may be particularly valuable for reaching consumers with initial resistance to healthcare messages.

Character Perception Effects. In stories without identifiable characters, high narrativity significantly increased the likelihood of character perception compared to low narrativity (H15 supported). The odds of perceiving a character were 1.85 times higher in high narrativity conditions (26.9% of participants) compared to low narrativity conditions (16.6% of participants). However, this perception did not translate into enhanced narrative engagement or advertising effectiveness (RQ2, RQ5). Actual character presence generally produced stronger effects than perceived character presence, though most

differences were not statistically significant (RQ3). These findings suggest that while well-structured plots may facilitate character imagination, such imagined characters have limited persuasive impact compared to explicitly presented characters.

Effect Size Considerations. Effect sizes for most significant findings were small to medium, with standardized coefficients typically in the 0.10 to 0.30 range. The largest effect sizes were observed for identification effects on emotional responses ($\beta = 0.530$), transportation effects on counter-arguing ($\beta = -0.568$), and the paths from both mediators to advertising effectiveness in the mediation analyses ($\beta = 0.540$ for transportation, $\beta = 0.521$ for identification). R^2 values ranged widely, from very small for some interactions ($R^2 < 0.05$) to substantial for models predicting emotional responses ($R^2 = 0.613$) and moderator models involving healthcare attitudes ($R^2 > 0.40$). Despite some small effect sizes, the consistent patterns observed across analyses, particularly in the mediating processes, suggest these are meaningful effects that reveal important insights about narrative persuasion in healthcare contexts.

Collectively, these findings point toward a nuanced model of narrative healthcare advertising where both structure and character elements contribute to effectiveness through distinct but complementary pathways. Well-structured narratives with clear plot elements enhance transportation and reduce resistance, while character elements primarily enhance identification and emotional engagement. The effectiveness of these pathways is moderated by healthcare attitudes, with storytelling approaches being particularly valuable for consumers with less positive healthcare attitudes. The integration of these findings has important implications for both narrative persuasion theory and healthcare communication practice.

Discussion

The findings from Study 2 reveal a nuanced picture of patient story persuasion, with plot structure and character presence working through distinct but complementary pathways to influence consumer response. By addressing this dissertation's central question of how carefully crafted stories influence vulnerable healthcare consumers, this study provides critical insights into how story structure shapes healthcare decision making. While Study 1 deliberately deconstructed patient stories into their component content types, Study 2 examines how structural elements—imaginable plot and identifiable character—function in complete stories that integrate physical outcome, psychological outcome, and experience content. This approach directly supports this dissertation's purpose of understanding how intrinsic features of cancer patient stories influence consumer perceptions and decision making, building upon the component-level foundation established in Study 1.

In the context of healthcare services as credence goods, where consumers struggle to evaluate quality even after consumption (Angerer et al., 2023; Schenker et al., 2014), these findings have particular significance. Cancer patients face life-altering decisions based on limited information, making narrative evidence especially influential in their decision processes (Berry et al., 2020). Study 2 identified distinct patterns of effectiveness for story structure elements: high narrativity significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$) and ad effectiveness compared to control ($\beta = 0.166$, $p < 0.001$), while character presence consistently improved narrative engagement processes including transportation ($\beta = 0.159$, $p < 0.001$), identification ($\beta = 0.151$, $p < 0.001$), perceived similarity ($\beta = 0.167$, $p < 0.001$), and emotional responses ($\beta = 0.146$, p

< 0.001). The relationship between narrative engagement and persuasive outcomes revealed transportation as a significant mediator of character presence effects on ad effectiveness (indirect effect $\beta = 0.116$, $p < 0.001$), with identification showing a similar pattern (indirect effect $\beta = 0.104$, $p < 0.001$).

Perhaps most significantly, transportation—not identification as found in Study 1—emerged as the primary mechanism for reducing resistance processes. Transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < 0.001$) and persuasion knowledge activation ($\beta = -0.286$, $p = 0.047$), while identification failed to significantly reduce either form of resistance. This finding directly contradicts hypothesized relationships (H12c-f not supported) and reveals a fundamental distinction between how these mechanisms function in full patient stories versus patient story content. The combination of high narrativity and character presence (Condition 1) demonstrated some advantages in transportation and ad effectiveness compared to other conditions, though these effects were not consistently significant across all comparisons (H9a-b partially supported). These patterns suggest that while story elements enhance persuasion compared to non-storytelling approaches, their interactions are more complementary than synergistic in nature.

Contrary to expectations, individual differences (familiarity, attention, transportability, trait empathy) failed to moderate the effects of narrativity or character presence on narrative engagement (H10a-h not supported), as did threat severity (H11a-d not supported). However, healthcare attitudes significantly moderated both the transportation pathway ($\beta = -0.145$, $p < 0.001$) and the identification pathway ($\beta = -0.124$, $p = 0.002$) to ad effectiveness, with stronger effects observed for consumers with less

positive healthcare attitudes. This pattern suggests narrative persuasion mechanisms may be particularly effective for reaching healthcare-skeptical consumers, addressing a critical gap in understanding how patient stories influence vulnerable consumers with varying attitudes toward healthcare.

The examination of character perception in character-absent conditions revealed that high narrativity significantly increased the likelihood of character perception compared to low narrativity (odds ratio = 1.85, $p = 0.009$), with 26.9% of participants in high narrativity conditions perceiving a character versus 16.6% in low narrativity conditions. However, this enhanced perception did not translate into significant differences in narrative engagement or persuasive outcomes, suggesting that actual character presence produces stronger effects than perceived character presence, particularly for emotional responses where the difference reached statistical significance.

Study 2 findings support a Dual Pathway Integration Model (DPIM) that explains how plot structure and character presence work through distinct but complementary mechanisms in complete patient stories. This model positions transportation and identification as parallel processes with different downstream consequences—transportation primarily reducing resistance and directly influencing persuasion outcomes, while identification primarily enhancing emotional engagement. The model recognizes plot narrativity as a structural element that enhances transportation directly while potentially facilitating character perception even in character-absent stories. Character presence directly enhances both transportation and identification, but with transportation showing stronger effects on resistance reduction than identification, contrary to theoretical expectations.

The Dual Pathway Integration Model (DPIM) addresses limitations in both the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) and the Narrative Immersion Model (NIM; Shaffer et al., 2018a) by explaining how structural elements that enhance narrative engagement operate through distinct mechanisms with different consequences for resistance processes and persuasive outcomes. This model builds upon the Content-Moderated Dual-Process Model (CMDPM) developed in Study 1, which demonstrated that content type fundamentally moderates how story elements function when presented in isolation. Together, these models provide a comprehensive theoretical framework for understanding how both content and structure elements influence consumer response to patient stories, addressing the critical gap in current understanding of how cancer patient stories influence vulnerable consumers in this high-stakes decision context (Berry et al., 2020; Hlubocky et al., 2020).

Theoretical Implications

The Study 2 findings advance narrative persuasion theory by providing insight into how structural elements—imaginable plot and identifiable character—fluence consumer response to patient stories. This section examines theoretical implications of Study 2 findings, with a focus on how these results extend and refine existing theoretical frameworks including the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) and the Narrative Immersion Model (NIM; Shaffer et al., 2018a). The analysis begins with the most theoretically significant findings—plot effects and transportation dominance—before addressing character effects, mediating mechanisms, and moderating influences.

Dual Pathway Processing of Narrative Structure. Study 2 findings support a Dual Pathway Integration Model (DPIM) that explains how plot structure and character presence work through distinct but complementary mechanisms in patient stories. This conceptualization aligns with recent theoretical perspectives suggesting transportation and identification serve distinct persuasive functions operating in parallel rather than sequentially (Tal-Or & Cohen, 2010; Green, 2021; Murphy et al., 2013). This dissertation's model positions transportation and identification as parallel processes with different downstream consequences. Transportation primarily reduces resistance and directly influences persuasion outcomes, while identification primarily enhances emotional engagement. The transportation pathway shows a stronger relationship with resistance reduction (counter-arguing: $\beta = -0.568$, $p < .001$; persuasion knowledge: $\beta = -0.286$, $p = .047$) compared to the identification pathway, which showed no significant effects on resistance reduction (counter-arguing: $\beta = 0.242$, $p = .126$; persuasion knowledge: $\beta = 0.104$, $p = .466$).

These differential effects directly contradict hypotheses H12e-f, which predicted identification would have stronger effects on reducing resistance than transportation. Instead, a significant effect in the opposite direction was observed for counter-arguing ($\beta = 0.810$, $p = .008$). This pattern fundamentally challenges prevailing assumptions about how narrative engagement mechanisms influence persuasion. While the traditional perspective suggested identification creates stronger resistance reduction through personal connection (Cohen, 2001), Study 2 findings demonstrate that transportation's immersive quality more effectively suppresses critical processing in complete patient stories. This finding is consistent with transportation's theorized mechanism of reducing

counterarguing by consuming cognitive resources that would otherwise be used to scrutinize message claims (Green, 2006, 2021), while extending this understanding to the patient story advertising context.

This model builds upon the Content-Moderated Dual-Process Model (CMDPM) developed in Study 1 by explaining how structural elements influence narrative engagement when content types are integrated in complete stories. The CMDPM demonstrated that content type fundamentally moderates how story elements function when presented in isolation, with distinct processing routes activated by different content types. The DPIM extends this framework by showing how narrative structure elements organize and integrate these routes in complete patient stories, with high narrativity and identifiable character presence enhancing distinct aspects of the persuasion process. Together, these models provide a comprehensive theoretical framework for understanding patient story advertising that addresses limitations in both content-focused and structure-focused approaches.

Plot Narrativity and Resistance Reduction. Study 2 findings on plot structure support narrativity theory (Schreiner et al., 2018) while revealing important boundary conditions. High narrativity significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$) as predicted by H6a, demonstrating that coherent temporal and causal sequences facilitate immersion in the narrative world. This aligns with Schreiner et al.'s (2018) proposition that high narrativity enhances transportation through processing fluency, where better-structured plots require less cognitive effort to process, allowing more resources for immersive engagement. However, the effect size was small, suggesting that while

narrativity influences transportation, other factors also contribute substantially to narrative engagement.

The marginal effects of high narrativity on counter-arguing ($\beta = -0.066$, $p = 0.068$, H6b partially supported) and emotional responses ($\beta = 0.069$, $p = 0.060$, H6c partially supported) similarly suggest that narrativity theory correctly identifies plot structure's influence on these outcomes, though with more modest effects than anticipated. This pattern aligns with Nabi and Green's (2015) emotional flow perspective, which suggests that well-structured stories guide emotional responses through organized sequences of events. The non-significant effect on message credibility ($\beta = 0.050$, $p = 0.178$, H6d not supported) contrasts with Dahlstrom et al.'s (2017) finding that story structure enhances perceived credibility, suggesting that in healthcare contexts where message scrutiny may be heightened, plot structure alone may not significantly enhance credibility perceptions.

Comparing the effects of high and low narrativity on ad effectiveness reveals that while both significantly outperformed the control condition (high: $\beta = 0.166$, $p < 0.001$, H6e supported; low: $\beta = 0.109$, $p = 0.015$, H6f supported), high narrativity showed a somewhat stronger effect. This finding extends narrativity theory by demonstrating that even minimal story structure offers persuasive advantages over non-narrative content, with high narrativity providing incremental benefits. These results confirm that clear temporal and causal sequences enhance processing fluency and persuasive impact in healthcare contexts, though the modest effect sizes suggest narrativity functions as an optimization rather than transformative element in patient story effectiveness.

The fact that high narrativity reduced counter-arguing, though only marginally ($\beta = -0.066$, $p = 0.068$), supports Green and Brock's (2000, 2002) transportation theory,

which posits that narrative immersion reduces critical scrutiny of message claims. However, the interaction between high narrativity and character presence on counter-arguing ($\beta = 0.118$, $p = 0.057$) trended in the opposite direction than predicted (H12i not supported), suggesting that the combination of these elements may actually increase rather than decrease counter-arguing compared to other combinations. This unexpected pattern indicates that highly immersive stories with identifiable characters may sometimes enhance critical processing rather than reduce it, particularly in healthcare contexts where consumers may be especially vigilant about marketing claims.

These findings collectively suggest that narrativity theory provides an incomplete explanation of how plot structure influences consumer response. While high narrativity does enhance transportation and reduce counter-arguing as predicted, the modest effect sizes and unexpected interaction with character presence reveal that plot structure functions more as an enabling mechanism that facilitates other processes rather than as a direct persuasive agent. This distinction explains why narrativity enhanced ad effectiveness compared to non-narrative content while showing more modest effects on intermediate processes.

Character Presence and Narrative Engagement. Character presence findings simultaneously support and challenge both exemplification theory (Zillmann, 1999, 2006) and the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) while extending understanding of how characters function in patient stories. Character presence consistently enhanced all narrative engagement processes measured: transportation ($\beta = 0.159$, $p < 0.001$, H7a supported), identification ($\beta = 0.151$, $p < 0.001$, H7b supported), perceived similarity ($\beta = 0.167$, $p < 0.001$, H7c supported), and

emotional responses ($\beta = 0.146$, $p < 0.001$, H7d supported). This pattern aligns with exemplification theory's prediction that identifiable exemplars enhance engagement by making abstract concepts more concrete and emotionally resonant. It also supports van Laer et al.'s (2014) ETIM proposition that identifiable characters significantly enhance narrative transportation by fostering empathy and immersion, creating conditions where consumers mentally enter the story world and vicariously experience characters' beliefs and emotions. The small but consistent effect sizes across engagement measures suggest that characters reliably enhance narrative processing across dimensions rather than influencing only specific aspects of engagement.

However, character presence findings regarding ad effectiveness present a more nuanced picture than both theories would predict. While both character-present and character-absent conditions significantly improved ad effectiveness compared to the control condition (present: $\beta = 0.157$, $p < 0.001$, H7e supported; absent: $\beta = 0.126$, $p = 0.005$, H7f supported), the difference between these conditions was not statistically significant (difference = 0.050, $p = 0.568$). This pattern suggests that while identifiable characters enhance narrative engagement, their direct contribution to persuasive outcomes is more limited than exemplification theory would predict. Similarly, this finding challenges the ETIM's suggestion that identifiable characters should reduce critical scrutiny and increase story-consistent beliefs and attitudes through enhanced transportation (van Laer et al., 2014). The finding that plot structure itself provides persuasive advantages regardless of character presence indicates that both exemplification effects and character-driven transportation may be secondary to broader effects of patient stories.

The examination of character perception in character-absent conditions further refines understanding of character effects. High narrativity significantly increased character perception compared to low narrativity (odds ratio = 1.85, $p = 0.009$, H1 supported), suggesting that well-structured plots facilitate mental models that prompt perception of an identifiable character when such a character is not present. However, this perception did not significantly enhance narrative engagement or persuasive outcomes, indicating that actual character presence produces stronger effects than mentally constructed character presence. This distinction highlights an important boundary condition for exemplification theory: while actual exemplars reliably enhance engagement, mentally constructed exemplars appear to have more limited effects, particularly in healthcare contexts where concrete representation may be especially influential.

These findings extend exemplification theory by distinguishing between formal character presence and perceived character presence, suggesting that the concrete, visible representation of characters provides unique engagement benefits that cannot be fully replicated through mental construction. This perspective aligns with Kim et al.'s (2012) research showing exemplars enhance narrative engagement through increased emotional response and perceived similarity—processes that appear to require concrete character representation rather than abstract character construction. The findings also extend the ETIM by qualifying van Laer et al.'s (2014) emphasis on identifiable characters as key enhancers of transportation. While character presence did significantly enhance transportation as the ETIM predicts, the modest effect size and lack of significant difference in persuasive outcomes between character-present and character-absent

conditions suggests the ETIM may overstate character effects in certain contexts. These nuanced findings help explain why healthcare brands invest significantly in presenting authentic patient characters rather than relying on abstract descriptions that might elicit a perceived character.

The significant mediation of character presence effects on ad effectiveness through both transportation (indirect effect $\beta = 0.116$, $p < 0.001$, H8a supported) and identification (indirect effect $\beta = 0.104$, $p < 0.001$, H8b supported) further refines understanding of how characters achieve their effects. These pathways represent distinct but complementary processes through which characters influence persuasion—transportation enhancing immersion in the story world while identification facilitates perspective-taking with specific characters. The similar magnitude of these indirect effects suggests both pathways contribute meaningfully to character influence rather than one dominating the process. This dual-pathway perspective extends both exemplification theory and the ETIM by specifying multiple mechanisms through which characters achieve their effects rather than assuming a single process model (van Laer et al., 2014; Zillmann, 1999, 2006). While the ETIM emphasizes transportation as the primary mechanism through which identifiable characters enhance persuasion, these findings suggest identification represents an equally important parallel pathway. This confirms Cohen's (2001, 2017) emphasis on identification as a distinct perspective-taking process rather than merely a component of transportation. These findings specify distinct pathways of influence that add precision to understanding character effects.

Narrative Engagement Hierarchy and Transportation Primacy. Study 2 findings on mediating mechanisms challenge the hierarchy of narrative engagement

proposed in the Narrative Immersion Model (NIM; Shaffer et al., 2018a) while supporting key aspects of transportation theory (Green & Brock, 2000, 2002). The NIM conceptualizes narrative engagement as a progression from interest through involvement (identification) to immersion (transportation), suggesting transportation represents the deepest level of narrative engagement. Study 2 findings partially support this hierarchical model, as both transportation and identification functioned as significant mediators of character presence effects on ad effectiveness. However, the pattern of effects on resistance processes fundamentally challenges NIM's hierarchical assumption. Transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), while identification failed to reduce either form of resistance. This pattern directly contradicts hypotheses H12c-d, which predicted identification would reduce resistance processes.

The stronger effect of transportation on resistance reduction compared to identification directly contradicts hypothesis H12e, which predicted identification would have a stronger negative effect on counter-arguing than transportation. Instead, a significant effect in the opposite direction was observed ($\beta = 0.810$, $p = .008$), indicating transportation had a significantly stronger effect on reducing counter-arguing than identification. This pattern challenges the assumption in the NIM that deeper levels of engagement (transportation) build upon and extend the effects of earlier levels (identification). Instead, the findings suggest transportation and identification represent distinct rather than hierarchically related processes with different persuasive consequences.

These findings align with theoretical perspectives suggesting transportation and identification are conceptually distinct constructs that can be independently manipulated and measured (Tal-Or & Cohen, 2010; Green, 2021), with each serving specialized functions in narrative persuasion. This also supports transportation as a distinct immersive state that naturally reduces critical processing of message claims. The strong negative relationship between transportation and counter-arguing ($\beta = -0.568$) supports their proposition that narrative immersion suppresses analytical processing, allowing story-consistent beliefs to form with less critical evaluation. However, the findings extend transportation theory by demonstrating that this effect operates independently from identification processes rather than working through character connection as often assumed. This distinction has particular significance for healthcare contexts where resistance to persuasion may be heightened because of the consequential nature of treatment decisions.

In the domain of emotional and persuasive outcomes, Study 2 findings reveal a differentiated pattern that further refines understanding of narrative engagement mechanisms. Both transportation and identification significantly increased emotional responses (transportation: $\beta = 0.269$, $p = .047$, H13a supported; identification: $\beta = 0.530$, $p < .001$, H13b supported), but identification showed a substantially stronger effect. This pattern suggests identification particularly enhances emotional dimensions of narrative processing—connecting with characters appears to generate stronger emotional resonance than immersion in the story world more broadly. This aligns with both Zillmann's (1999, 2006) exemplification theory and van Laer et al.'s (2014) ETIM, which propose that character connection creates emotional engagement, though the stronger effect of

identification compared to transportation suggests that the specific mechanism of perspective-taking may be particularly powerful for emotional outcomes. This finding supports Cohen & Klimmt's (2021) characterization of identification as facilitating empathy and perspective-taking that creates stronger emotional responses compared to general story immersion.

For ad effectiveness, transportation showed a significant positive effect ($\beta = 0.309$, $p = .024$, H13c supported) while identification's effect was smaller and marginally significant ($\beta = 0.245$, $p = .080$, H13d not supported). The hypothesis that identification would have a stronger effect on ad effectiveness than transportation was not supported (H13e not supported), further challenging the hierarchical assumption that identification represents a more advanced form of narrative engagement than transportation. This pattern suggests that while character connection through identification may create stronger emotional engagement, transportation's immersive quality more directly influences overall persuasive outcomes—a distinction not fully captured in either exemplification theory or the ETIM. These effects align with meta-analytic evidence showing that while transportation correlates with affective responses ($r = 0.57$) (van Laer et al., 2014), it also uniquely influences message acceptance and attitude formation through resistance reduction.

These findings collectively support a revised theoretical framework that positions transportation and identification as parallel rather than sequential processes with different downstream consequences. Transportation primarily reduces resistance and directly influences persuasion outcomes, while identification primarily enhances emotional engagement without necessarily reducing resistance. This differentiated model extends

both the NIM and transportation theory by specifying distinct roles for different engagement mechanisms rather than assuming uniform enhancement effects. The pattern also connects with Shaffer et al.'s (2018b) finding that narrative engagement can simultaneously trigger both immersive and scrutinizing responses, suggesting the relationship between identification and resistance reduction may be more complex than previously theorized, particularly in healthcare contexts where message scrutiny may be heightened.

Healthcare Context Moderation. The unexpected pattern of healthcare moderator effects in Study 2 fundamentally challenges assumptions about how context-specific factors influence narrative persuasion. While individual difference variables (transportability, trait empathy) and threat severity failed to moderate narrative engagement effects as predicted (H10-H11 not supported), healthcare attitudes demonstrated consistent moderation of both transportation ($\beta = -0.145$, $p < .001$, H14a supported) and identification ($\beta = -0.124$, $p = .002$, H14g supported) effects on ad effectiveness. The negative interaction effects indicate that narrative engagement processes have stronger effects on ad effectiveness for individuals with less positive healthcare attitudes—a pattern that directly challenges the assumption that narrative persuasion works most effectively for consumers already positively disposed toward the message domain.

This pattern extends the visceral congruency framework (Freling et al., 2020) by demonstrating that in healthcare contexts, storytelling approaches may be particularly valuable for reaching skeptical consumers rather than reinforcing existing positive attitudes. The framework suggests healthcare contexts amplify certain moderator effects

by increasing both personal relevance and threat severity but does not specify the direction of these effects. Study 2 findings provide this specificity, showing that narrative engagement may be especially persuasive for healthcare-skeptical consumers—a critical insight for understanding how patient stories influence vulnerable healthcare consumers.

The selective moderation pattern—where healthcare attitudes significantly moderate narrative effects while most other variables do not—suggests that domain-specific attitudes play a particularly important role in narrative healthcare persuasion. This aligns with Dutta-Bergman's (2004) research showing healthcare attitudes significantly influence how consumers process healthcare messages, but the findings extend this work by specifying that these attitudes particularly moderate narrative engagement effects rather than influencing all processing routes equally. This distinction has important implications for understanding when and for whom storytelling approaches might be most effective in healthcare contexts.

The finding that provider status moderated the transportation pathway ($\beta = -0.038$, $p < .001$, H14c supported), though with a negligible effect size, while other healthcare involvement variables (access, insurance status, health status, quality of life) did not significantly moderate either pathway, further refines understanding of which specific healthcare factors matter for narrative persuasion. This selective pattern suggests that attitudinal factors may be more influential than structural healthcare factors (like access or insurance) in determining narrative effectiveness—an important theoretical refinement that helps explain why patient stories might influence consumers differently despite similar structural circumstances.

These moderator findings collectively suggest that narrative persuasion in healthcare contexts operates through more complex processes than assumed in general narrative frameworks like the ETIM (van Laer et al., 2014). The ETIM identifies broad story receiver characteristics that influence transportation effectiveness but does not specify how domain-specific attitudes might moderate these effects or suggest that storytelling approaches might be particularly effective for skeptical consumers. Study 2 findings address this theoretical gap by demonstrating that in healthcare contexts, narrative persuasion mechanisms may function as bridges to engage healthcare-skeptical consumers rather than primarily reinforcing existing positive attitudes. This perspective fundamentally changes theoretical understanding of when and why patient stories influence vulnerable healthcare consumers, suggesting they may have particular value for consumers who might otherwise resist healthcare marketing messages.

Plot-Character Interactions and Complementary Elements. The exploration of interaction effects between plot structure and character presence (H9a-b) reveals important theoretical insights about how structural elements work together in patient stories. While the combination of high narrativity and character presence (Condition 1) showed advantages in transportation and ad effectiveness compared to some conditions, it did not consistently outperform all alternatives as hypothesized. For transportation, Condition 1 showed significantly higher levels compared to Condition 2 (high narrativity, character absent; difference = 0.253, p = 0.005) and Condition 4 (low narrativity, character absent; difference = 0.556, p < 0.001), but not compared to Condition 3 (low narrativity, character present; difference = 0.124, p = 0.199). For ad effectiveness,

Condition 1 significantly outperformed Condition 4 (difference = 0.135, $p = 0.031$) and the control condition (difference = 0.251, $p < 0.001$), but not Conditions 2 or 3.

This pattern suggests that story elements function more as complementary than additive or synergistic factors. The absence of consistent multiplicative effects when combining high narrativity and character presence indicates that these elements contribute to narrative persuasion through parallel rather than interdependent processes. This finding directly challenges a core assumption in the ETIM (van Laer et al., 2014), which positions storyteller antecedents (identifiable characters, imaginable plots, and verisimilitude) as universal enhancers that work together to boost transportation effects. Instead, Study 2 findings suggest a substitution effect where strength in one story element (high narrativity or character presence) may partially compensate for weakness in another. This aligns with Shaffer et al.'s (2018a) model, which promotes purposeful design choices where elements are strategically aligned with intended outcomes.

This complementary relationship has important theoretical implications for understanding how story elements influence persuasion. Rather than assuming elements must be maximized across all dimensions, the findings suggest different configurations of elements may achieve similar effects through different pathways. This perspective aligns with Green and Jenkins' (2014) proposition that stories can engage audiences through multiple entry points rather than requiring a single optimal configuration. The finding that both high and low narrativity improved ad effectiveness compared to control, and that both character presence and absence improved ad effectiveness compared to control, further supports this multi-pathway perspective on narrative persuasion.

The complementary rather than synergistic relationship between plot and character also explains the research question findings regarding character perception. While high narrativity significantly increased the likelihood of character perception in stories without identifiable characters (RQ1a/H15 supported), this perception did not translate into enhanced narrative engagement or persuasive outcomes (RQ2, RQ5). Actual character presence generally produced stronger effects than perceived character presence, though most differences were not statistically significant except for emotional responses (RQ3). This pattern suggests that while story structure can facilitate perception of an identifiable character when one is absent, such imagined characters have limited persuasive impact compared to identifiable characters. This distinction refines both exemplification theory (Zillmann, 1999, 2006) and the ETIM (van Laer et al., 2014) by specifying that perceived exemplars function differently than actual exemplars, explaining why healthcare brands invest in authentic patient portrayals rather than relying on abstract descriptions that might prompt character imagination.

These findings collectively support a revised theoretical framework that positions story elements as complementary rather than purely synergistic factors. This framework explains why different configurations of story elements might achieve similar outcomes through different processing routes, an insight that both extends and challenges existing narrative theories. The ETIM correctly identifies multiple storyteller antecedents (identifiable characters, imaginable plots, and verisimilitude) that influence transportation but does not account for their potentially compensatory rather than multiplicative relationships. Van Laer et al. (2014) suggest these elements work together to enhance transportation effects, yet Study 2 findings reveal a more complex relationship where

strength in one element may partially compensate for weakness in another. The NIM (Shaffer et al., 2018a) correctly identifies multiple levels of narrative engagement but does not fully explain how structural elements might selectively enhance certain engagement processes rather than uniformly advancing progression through all levels. The findings from Study 2 address these theoretical gaps by demonstrating that story elements function as complementary factors that can achieve similar persuasive outcomes through different pathways depending on specific configuration. This complementary relationship challenges the universal enhancement assumption suggested by van Laer et al.'s (2014) meta-analysis, which positioned storyteller antecedents as independent and additive factors that each independently contribute to transportation effects.

Summary. Study 2 findings support a Dual Pathway Integration Model (DPIM) that explains how plot structure and character presence work through distinct but complementary mechanisms in complete patient stories. The model makes four key theoretical contributions:

First, it positions transportation and identification as parallel rather than sequential processes with different downstream consequences—transportation primarily reducing resistance and directly influencing persuasion outcomes, while identification primarily enhancing emotional engagement without necessarily reducing resistance. This challenges the NIM's hierarchical assumption that transportation represents a deeper level of engagement than identification, instead suggesting these processes serve distinct functions in narrative persuasion.

Second, it demonstrates that story elements function as complementary rather than synergistic factors, with different configurations achieving similar outcomes through

different pathways. This challenges the ETIM's assumption that storyteller antecedents work together to universally enhance transportation (van Laer et al., 2014), instead suggesting these elements may partially compensate for each other in achieving persuasive outcomes. While the ETIM proposes that identifiable characters and imaginable plots both enhance transportation in an additive fashion, Study 2 reveals a more complex relationship where different combinations of story elements can achieve similar persuasive outcomes through distinct processing routes.

Third, it reveals that healthcare attitudes significantly moderate narrative engagement effects, with stronger effects observed for individuals with less positive healthcare attitudes. This challenges assumptions that storytelling approaches work most effectively for consumers already positively disposed toward the message domain, instead suggesting narratives may serve as bridges to engage those who are skeptical of healthcare.

Fourth, it distinguishes between actual and perceived character presence, demonstrating that while high narrativity can increase character perception in character-absent stories, this perception has limited persuasive impact compared to explicitly presented characters. This refines both exemplification theory (Zillmann, 1999, 2006) and the ETIM (van Laer et al., 2014) by specifying boundary conditions for exemplar effects in healthcare contexts.

These theoretical contributions collectively transform understanding of how patient stories influence consumer decision making, moving beyond universal enhancement assumptions toward a more nuanced model that explains when and why different structural elements enhance persuasion through distinct but complementary

pathways. This framework provides both explanatory power for complex empirical patterns and predictive value for understanding how story elements might function in real-world healthcare advertising contexts.

Practical Implications

The Study 2 findings translate into actionable guidance for patient story design, with strategic decisions about plot structure and character presence informed by empirical evidence. This section synthesizes practical implications for healthcare communicators, focusing on how Study 2 findings can inform the development of more effective patient stories that balance narrative engagement with ethical communication principles. While patient stories are complex communications that integrate multiple elements, understanding how plot structure and character presence function provides essential guidance for storytelling decisions in healthcare contexts.

Strategic Narrative Structure Framework. Study 2 findings support a Strategic Narrative Structure Framework that considers how plot structure and character presence contribute to different persuasive outcomes through distinct mechanisms. Rather than applying universal “best practices” across all patient stories, healthcare communicators can make evidence-based decisions about story structure based on specific communication objectives. For enhancing transportation, the combination of high narrativity and character presence showed the strongest effects (H9a partially supported), with this combination significantly outperforming both high narrativity without character (difference = 0.253, $p = 0.005$) and low narrativity without character (difference = 0.556, $p < 0.001$). For reducing counter-arguing, transportation emerged as the primary mechanism ($\beta = -0.568$, $p < .001$), suggesting storytelling approaches that enhance

transportation may be particularly valuable for addressing resistance. For enhancing emotional responses, identification showed stronger effects ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$), indicating that character-focused approaches may be particularly effective for emotional engagement.

This objective-specific framework acknowledges that different story structures serve distinct persuasive functions. Rather than treating narrativity and character presence as universal enhancers that should always be maximized, healthcare communicators can make strategic decisions about structure based on specific communication priorities:

1. **For maximizing transportation and reducing resistance.** High narrativity with character present (Condition 1) demonstrated the strongest effects on transportation compared to most conditions and indirectly on reducing counter-arguing through the transportation pathway. This structure appears particularly valuable for addressing skepticism and resistance—an important consideration given that healthcare attitudes significantly moderated narrative effects, with stronger effects for individuals with less positive healthcare attitudes ($\beta = -0.145$, $p < .001$).
2. **For enhancing overall ad effectiveness with limited resources.** While the combination of high narrativity and character presence showed advantages, both high narrativity without character ($\beta = 0.232$, $p < .001$) and low narrativity with character ($\beta = 0.193$, $p = .002$) significantly enhanced ad effectiveness compared to control. These findings suggest that when resource constraints make story development challenging, healthcare communicators

can achieve significant improvements through either well-structured plots or compelling characters rather than requiring both.

3. ***For Emotional Engagement.*** Character presence consistently enhanced emotional responses ($\beta = 0.146$, $p < .001$), with identification showing particularly strong effects on emotional outcomes ($\beta = 0.530$, $p < .001$). This suggests that character-driven approaches may be particularly valuable when emotional engagement represents the primary communication objective.

4. ***For Balanced Persuasion and Education.*** The finding that transportation reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$) suggests that enhancing transportation through high-narrativity plots may help balance emotional engagement with reduced resistance—a critical balance for ethical healthcare communication that seeks to inform while persuading.

These objective-specific recommendations provide a foundation for strategic narrative structure decisions based on empirical evidence rather than assumptions about universal effectiveness. The modest effect sizes observed across analyses (typically $R^2 < 0.30$) suggest that while story structure significantly influences outcomes, it functions as an optimization rather than transformation factor—requiring strategic application based on specific communication goals.

Plot Structure Implementation. Study 2 findings provide specific guidance for implementing plot structure in patient stories. High narrativity significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$) and ad effectiveness compared to control ($\beta = 0.166$, $p < 0.001$), with stronger effects than low narrativity observed for several outcomes.

These findings translate into actionable recommendations for crafting more effective plot structures in patient stories:

High Narrativity Elements

- **Clear temporal sequence.** Structure stories with distinct beginning, middle, and end phases that follow a logical chronological progression. This temporal clarity enhances processing fluency and transportation, as demonstrated by the significant positive effect of high narrativity on transportation ($\beta = 0.093$, $p = 0.014$).
- **Explicit causal links.** Establish clear cause-effect relationships between healthcare interventions and outcomes. The finding that high narrativity marginally reduced counter-arguing ($\beta = -0.066$, $p = 0.068$) suggests causal clarity may help reduce skepticism toward message claims.
- **Resolution structure.** Develop coherent story arcs that progress from complication to resolution, as high narrativity showed significantly enhanced ad effectiveness compared to control ($\beta = 0.166$, $p < 0.001$).
- **Narrative integration.** Connect different story elements through cohesive plot development rather than presenting disconnected testimonials. The finding that high narrativity enhanced transportation suggests integrated storylines facilitate immersion in the story world.

Implementation Approaches

- **Journey framework.** Structure stories around the patient journey from symptom recognition through treatment to recovery, establishing clear progression that enhances transportation.

- **Problem-intervention-resolution.** Organize stories to clearly establish the health problem, show healthcare brand intervention, and demonstrate resolution, providing the causal clarity that distinguishes high from low narrativity.
 - **Milestone structure.** Develop plots around significant treatment milestones and decision points, creating the temporal structure that enhances transportation while maintaining authenticity.
 - **Contrast structure.** Implement before-after comparisons within cohesive stories that demonstrate healthcare outcomes while maintaining clear causal connections.
- These implementation approaches directly address the story structure elements that distinguished high from low narrativity conditions in Study 2. While even low narrativity significantly improved ad effectiveness compared to control ($\beta = 0.109, p = 0.015$), the stronger effects observed for high narrativity suggest these structural elements provide incremental advantages for healthcare communicators. The significant relationship between transportation and reduced counter-arguing ($\beta = -0.568, p < .001$) further suggests these structural elements may be particularly valuable for addressing resistance to persuasion in healthcare contexts.

Character Presence Implementation. Character presence findings provide practical guidance for implementing patient characters in patient stories. Character presence consistently enhanced all narrative engagement processes measured: transportation ($\beta = 0.159, p < 0.001$), identification ($\beta = 0.151, p < 0.001$), perceived similarity ($\beta = 0.167, p < 0.001$), and emotional responses ($\beta = 0.146, p < 0.001$). These findings translate into specific recommendations for character implementation:

Character Development Approaches

- **Authentic portrayal.** Present realistic, relatable patient characters rather than idealized representations. While character presence consistently enhanced engagement, the modest effect sizes suggest authenticity may be more important than perfection in character development.
- **Perspective clarity.** Establish clear character viewpoints that facilitate identification, as character presence significantly enhanced identification ($\beta = 0.151$, $p < 0.001$) which in turn strongly affected emotional responses ($\beta = 0.530$, $p < .001$).
- **Experience illustration.** Use characters to illustrate treatment experiences and emotional journeys, leveraging the significant effect of character presence on emotional responses ($\beta = 0.146$, $p < .001$).
- **Selective details.** Focus character development on relevant aspects that enhance identification and emotional connection rather than comprehensive biographies, as the mediation analysis showed identification significantly affected ad effectiveness (indirect effect $\beta = 0.104$, $p < 0.001$).

Strategic Character Considerations

- **Character-content alignment.** The examination of character perception revealed that actual character presence produced stronger effects than perceived character presence, suggesting healthcare communicators should explicitly develop characters rather than relying on consumer imagination.
- **Resistance management.** Transportation, not identification, emerged as the primary mechanism for reducing resistance processes (counter-arguing: $\beta = -0.568$, $p < .001$; persuasion knowledge: $\beta = -0.286$, $p = .047$). This suggests

character development should emphasize elements that enhance transportation (immersion in the story world) rather than focusing exclusively on identification processes.

- **Emotional vs. analytical balance.** The finding that identification more strongly affected emotional responses ($\beta = 0.530$, $p < .001$) while transportation more strongly affected ad effectiveness ($\beta = 0.309$, $p = .024$) suggests character development should consider this differential impact based on specific communication objectives.

Implementation Approaches

- **Multiple character perspectives.** When targeting diverse consumers, consider multiple patient characters rather than single exemplars to enhance perceived similarity across segments. This approach acknowledges the significant effect of character presence on perceived similarity ($\beta = 0.167$, $p < 0.001$) while addressing potential limitations of single exemplars.
- **Narrative voice selection.** Strategic decisions about first-person vs. third-person narration can optimize for specific objectives. First-person may enhance identification, while third person may facilitate transportation, allowing for tailored approaches based on communication priorities.
- **Visual representation.** The significant advantage of actual character presence over perceived character presence suggests visual representation of characters provides engagement benefits that cannot be fully achieved through text alone, an important consideration for multimedia patient stories.

- **Character journey focus.** Frame character development around healthcare journeys rather than personal attributes, emphasizing experiences that facilitate both identification and transportation.

These character implementation approaches directly address the engagement processes enhanced by character presence in Study 2. While character presence enhanced narrative engagement across dimensions, the differential effects of transportation and identification on outcomes suggest that character development should consider specific communication objectives rather than assuming universal enhancement effects.

Healthcare Context Applications. Study 2 findings about healthcare moderators provide important guidance for adapting storytelling approaches to different healthcare contexts. Healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, with stronger effects observed for individuals with less positive healthcare attitudes. These findings translate into specific recommendations for adapting storytelling approaches to different healthcare contexts:

For Consumers with Negative Healthcare Attitudes

- **Enhanced narrative structure.** Given the stronger effects of narrative engagement for consumers with less positive healthcare attitudes, well-structured stories with high narrativity and character presence may be particularly valuable for reaching those who are skeptical of healthcare. This approach leverages the negative moderation effect ($\beta = -0.145$, $p < .001$) that demonstrated increased persuasive impact for these individuals.

- **Transportation focus.** Since transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), storytelling approaches that enhance transportation may be particularly valuable for addressing resistance among skeptical consumers.
- **Credibility enhancement.** For skeptical consumers, integrate credibility-enhancing elements within patient stories, such as third-party validation, specific outcome metrics, and realistic experience portrayals. This addresses the finding that healthcare attitudes moderated narrative effects, suggesting additional credibility elements may be particularly important for these consumers.

For Audience Segmentation

- **Attitude-based segmentation.** The consistent moderation effect of healthcare attitudes suggests audience segmentation based on healthcare attitudes may provide more effective targeting than demographic or structural healthcare variables (like access or insurance). This aligns with the non-significant moderation findings for most structural healthcare variables.
- **Tailored message development.** Develop more immersive, transportation-enhancing stories for healthcare-skeptical consumers, while allowing for more straightforward informational approaches for those with more positive healthcare attitudes. This strategic allocation acknowledges the finding that storytelling approaches have stronger effects for individuals with less positive healthcare attitudes.
- **Provider status considerations.** The significant (though modest) moderation effect of provider status for transportation ($\beta = -0.038$, $p < .001$) suggests that

story structure may function differently for individuals with different provider relationships. This insight could inform targeting decisions for patient acquisition versus patient retention communications.

These healthcare context applications address the finding that narrative engagement effects vary systematically based on consumer characteristics, particularly healthcare attitudes. By tailoring storytelling approaches to consumer segments based on these moderating factors, healthcare communicators can optimize effectiveness across diverse groups rather than applying uniform approaches regardless of characteristics.

Integration of Plot and Character. Study 2 findings about the interaction between plot structure and character presence provide guidance for integrating these elements effectively. While the combination of high narrativity and character presence (Condition 1) showed some advantages, the pattern of results suggested complementary rather than purely synergistic effects. These findings translate into specific recommendations for integrating plot and character elements:

Balanced Element Approach

- **Strategic element emphasis.** Rather than assuming all story elements must be maximized simultaneously, emphasize high narrativity or character presence based on specific communication objectives. The finding that both high narrativity without character ($\beta = 0.232$, $p < .001$) and low narrativity with character ($\beta = 0.193$, $p = .002$) significantly enhanced ad effectiveness compared to control suggests strategic element selection can achieve significant improvements even when resource constraints prevent maximizing all elements.

- **Resource optimization.** When facing resource constraints, prioritize high narrativity over character development for reducing resistance, given transportation's stronger effect on resistance reduction. Alternatively, prioritize character development for emotional engagement, given identification's stronger effect on emotional responses. This selective emphasis acknowledges the different pathways through which these elements achieve their effects.
- **Complementary element development.** Develop plot and character as complementary rather than interdependent elements, focusing on how they contribute through different pathways rather than assuming multiplicative effects. This approach acknowledges the finding that these elements functioned more as complementary than synergistic factors.

Implementation Strategies

- **Transportation-focused integration.** When targeting healthcare-skeptical consumers, integrate high narrativity with character presence in ways that particularly enhance transportation. This approach leverages transportation's significant effect on reducing counter-arguing ($\beta = -0.568$, $p < .001$) and the negative moderation effect of healthcare attitudes ($\beta = -0.145$, $p < .001$).
- **Parallel process optimization.** Develop parallel structures that simultaneously enhance transportation through high narrativity and identification through character development, acknowledging that these processes contribute to ad effectiveness through distinct but complementary pathways.
- **Balanced story development.** Create balanced patient stories that avoid overemphasis on either plot structure or character development, recognizing that

both elements contribute meaningfully to narrative engagement and ad effectiveness through different routes.

These integration recommendations address the finding that plot structure and character presence function as complementary rather than purely synergistic elements. By approaching integration strategically rather than assuming multiplicative effects, healthcare communicators can develop more effective patient stories that optimize resources while achieving communication objectives.

Evidence-Based Decision Framework. Study 2 findings support an evidence-based decision framework for patient story design based on specific communication objectives and empirical patterns rather than universal “best practices.” This framework translates complex empirical patterns into actionable guidance for healthcare communicators:

For Maximizing Overall Ad Effectiveness

- **High narrativity with character present.** This combination showed the strongest effects on ad effectiveness compared to control ($\beta = 0.251$, $p < .001$) and compared to low narrativity without character ($\beta = 0.084$, $p = .060$), suggesting it represents the optimal configuration when resources allow comprehensive story development.
- **Structural elements.** Clear temporal sequence, explicit causal links, resolution structure, and authentic character development.
- **Implementation focus.** Develop well-structured patient stories with identifiable characters that facilitate both transportation and identification.

For Resource-Constrained Communication

- **High narrativity without character.** This approach significantly enhanced ad effectiveness compared to control ($\beta = 0.232$, $p < .001$) without requiring character development resources. The findings suggest high narrativity alone can achieve significant improvements through enhanced transportation.
- **Structural elements.** Clear temporal sequence, explicit causal links, and resolution structure without character development.
- **Implementation focus.** Develop cohesive stories around the patient journey without investing in character development, allowing consumers to project themselves into the story.

Alternatively

- **Low narrativity with character present.** This approach also significantly enhanced ad effectiveness compared to control ($\beta = 0.193$, $p = .002$) and may require fewer resources than high narrativity development. The findings suggest character presence alone can achieve significant improvements through enhanced identification.
- **Structural elements.** Basic story structure with emphasis on character development and emotional connection.
- **Implementation focus.** Develop compelling patient characters that facilitate identification and emotional engagement without investing in complex plot development.

For Healthcare-Skeptical Consumers

- **Transportation-enhancing stories.** Given the negative moderation effect of healthcare attitudes ($\beta = -0.145$, $p < .001$) and transportation's effect on reducing

counter-arguing ($\beta = -0.568$, $p < .001$), this approach may be particularly valuable for skeptical consumers.

- **Structural elements.** High narrativity with clear causal links between healthcare interventions and outcomes to address skepticism.
- **Implementation focus.** Develop immersive stories that reduce critical scrutiny through transportation while establishing clear evidence of healthcare quality.

This evidence-based framework acknowledges that different communication objectives may require different storytelling approaches, with specific configurations of plot structure and character presence achieving optimal results for particular goals. By making strategic decisions based on empirical patterns rather than universal assumptions, healthcare communicators can develop more effective patient stories that achieve specific communication objectives while optimizing resource allocation.

Measurement and Testing Framework. Study 2 methods provide a foundation for measurement approaches that healthcare communicators can use to assess and refine patient stories. The validated measures used in this research can be adapted for pre-testing patient stories before deployment, providing evidence-based evaluation of narrative effectiveness:

Key Measurement Areas

- **Narrative engagement.** Assess transportation and identification to evaluate how effectively stories engage consumers through different mechanisms. The finding that these processes contribute to ad effectiveness through different pathways suggests both should be measured independently.

- **Resistance processes.** Measure counter-arguing and persuasion knowledge activation to evaluate how effectively stories reduce resistance to persuasion. The strong relationship between transportation and reduced counter-arguing ($\beta = -0.568$, $p < .001$) makes this an important indicator of narrative effectiveness.
- **Emotional responses.** Assess emotional engagement to evaluate identification effects, given the strong relationship between identification and emotional responses ($\beta = 0.530$, $p < .001$).
- **Ad effectiveness outcomes.** Measure brand beliefs, attitudes, intentions, and trust to evaluate overall effectiveness of patient stories. The second-order ad effectiveness construct provides a comprehensive framework for assessing multiple dimensions of effectiveness.

Testing Approaches

- **A/B testing.** Compare different story structures (high vs. low narrativity, character present vs. absent) to identify optimal approaches for specific consumer segments. The significant moderation effect of healthcare attitudes suggests A/B testing by attitude segment may be particularly valuable.
- **Sequential testing.** Test story elements individually before testing integrated approaches, allowing for isolation of specific effects before examining combined impact. This approach acknowledges the complementary rather than purely synergistic relationship between elements observed in Study 2.
- **Moderator analysis.** Evaluate how narrative effectiveness varies based on consumer characteristics, particularly healthcare attitudes. The significant

moderation effects observed in Study 2 suggest this approach may identify important consumer differences in narrative response.

Implementation Refinement

- **Adaptation framework.** Use testing results to refine storytelling approaches based on specific consumer characteristics and communication objectives. The varied patterns observed across outcome measures in Study 2 suggest different story configurations may be optimal for different communication goals.
- **Continuous improvement.** Implement ongoing testing and refinement rather than applying static approaches across communications. The modest effect sizes observed suggest incremental improvements through evidence-based refinement can enhance effectiveness over time.

These approaches to measurement and testing translate Study 2 methods into practical tools that healthcare communicators can use to develop and refine more effective patient stories. By adapting validated measures and testing procedures, healthcare brands can implement evidence-based approaches that optimize story structure for specific communication objectives and consumer characteristics.

Ethical Considerations. Study 2 findings raise important ethical considerations for patient story design. While patient stories significantly enhanced persuasion compared to non-storytelling approaches, the specific pathways through which they achieved these effects suggest ethical implications that healthcare communicators should consider:

Resistance Reduction Considerations

- **Transportation ethics.** The finding that transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$) raises ethical questions about reducing analytical processing of healthcare messages. While enhanced persuasion may benefit consumers by encouraging beneficial healthcare behaviors, reduced critical evaluation could potentially undermine informed decision making.
- **Balancing engagement and analysis.** Healthcare communicators should consider how to balance immersive engagement with opportunities for critical evaluation, particularly for consequential healthcare decisions. The strong effect of transportation on reducing counter-arguing suggests healthcare brands have significant ability to influence through storytelling approaches.
- **Resistance management ethics.** Transportation's effect on resistance reduction suggests healthcare brands should consider their ethical responsibility when developing highly transportive stories, particularly for vulnerable consumers. This consideration takes on added importance given the finding that storytelling approaches had stronger effects for individuals with less positive healthcare attitudes.

Healthcare Attitude Considerations

- **Targeting ethics.** The negative moderation effect of healthcare attitudes ($\beta = -0.145$, $p < .001$) raises questions about targeting storytelling approaches to healthcare-skeptical consumers. While these approaches may effectively reach consumers who might otherwise resist healthcare messages, healthcare

communicators should consider whether reduced resistance through transportation represents appropriate or potentially problematic influence.

- **Differential impact responsibility.** The finding that storytelling approaches had stronger effects for healthcare-skeptical consumers suggests healthcare brands have enhanced responsibility to ensure story content supports rather than undermines informed decision making for these particularly susceptible consumers.
- **Vulnerability management.** Healthcare communicators should consider how to develop patient stories that reach healthcare-skeptical consumers without exploiting vulnerability through excessive transportation effects that might reduce appropriate skepticism about healthcare claims.

Evidence Communication Ethics

- **Outcome representation.** The strong effects of high narrativity on ad effectiveness suggest healthcare brands should consider how plot structure establishes causal connections between healthcare brand interventions and outcomes. Ethical patient story development should ensure these connections accurately represent typical rather than exceptional outcomes.
- **Balance consideration.** While Study 2 did not explicitly examine evidence balance in stories, the strong persuasive effects observed suggest healthcare communicators should consider how to balance compelling story development with appropriate disclosure of risks, limitations, and alternative approaches.
- **Exemplar selection ethics.** Character presence findings suggest healthcare communicators should consider the ethical implications of exemplar selection,

ensuring patient characters represent appropriately diverse experiences rather than exclusively exceptional cases.

These ethical considerations extend beyond legal and regulatory requirements to address healthcare brands' enhanced obligations to vulnerable consumers (Schenker et al., 2014; Schwartz & Woloshin, 2016). By considering how storytelling approaches influence through specific psychological mechanisms, healthcare communicators can develop patient stories that effectively engage consumers while supporting rather than undermining informed decision making—addressing concerns raised by healthcare ethicists about potential exploitation of vulnerability through storytelling approaches.

Conclusion. Study 2 findings translate into actionable guidance for developing more effective patient stories through evidence-based decisions about plot structure and character presence. The Strategic Narrative Structure Framework provides a foundation for making objective-specific decisions about story elements rather than applying universal “best practices” across all communications. Implementation approaches for plot structure and character presence address the specific mechanisms through which these elements enhance effectiveness, while healthcare context applications acknowledge the important moderating role of consumer characteristics. Integration recommendations acknowledge the complementary rather than purely synergistic relationship between story elements, suggesting strategic approaches to balance development.

The evidence-based decision framework provides specific guidance based on communication objectives and resource constraints, while measurement and testing approaches offer practical tools for ongoing refinement. Ethical considerations address the enhanced responsibility of healthcare brands when using powerful storytelling

approaches, particularly given their stronger effects on healthcare-skeptical consumers.

Together, these practical implications transform complex empirical patterns into actionable guidance that healthcare communicators can use to develop more effective patient stories that balance engagement with ethical responsibility.

By systematically applying evidence-based approaches to patient story development, healthcare brands can enhance communicative effectiveness while addressing ethical concerns about potentially exploitative influence through storytelling approaches. This balanced perspective acknowledges both the legitimate role of patient stories in healthcare communication and the enhanced ethical responsibility of healthcare brands when communicating with vulnerable consumers making consequential healthcare decisions.

Connections to Study 1

The Study 2 findings build upon and extend the component-level insights from Study 1, providing a more comprehensive understanding of how patient stories influence consumer healthcare decisions. While Study 1 deconstructed patient stories to understand how content type and character presence function in isolation, Study 2 examined how plot structure and character presence influence narrative persuasion in complete stories that integrate physical outcome, psychological outcome, and experience content. This progression from isolated components to integrated patient stories addresses what McLeod (2022, 2023) and Willett (2024) identified as the strategic integration of multiple content types in healthcare brand patient stories.

Content-Moderated Dual-Process Model as Foundation. Study 1 revealed that different content types activate distinct processing routes when presented in isolation:

physical outcome content activated complementary observational and analytical routes, psychological outcome content primarily activated analytical routes with critical evaluation, and experience content activated competing observational and simulation routes. The Content-Moderated Dual-Process Model (CMDPM) developed in Study 1 positioned content type as the primary moderator determining which processing routes are activated and how story elements function.

The Study 2 findings validate and extend this theoretical foundation by demonstrating how plot structure functions as an integrative mechanism that organizes these content-activated processing routes in complete stories. High narrativity significantly enhanced transportation (H6a supported, $\beta = 0.093$, $p = 0.014$), marginally reduced counter-arguing (H6b partially supported, $\beta = -0.066$, $p = 0.068$), and marginally increased emotional responses (H6c partially supported, $\beta = 0.069$, $p = 0.060$). These effects align with the CMDPM prediction that narrativity would enhance emotional engagement through observational routes while simultaneously reducing analytical resistance—a pattern particularly evident in the finding that transportation significantly reduced both counter-arguing (H12a supported, $\beta = -0.568$, $p < 0.001$) and persuasion knowledge activation (H12b supported, $\beta = -0.286$, $p = 0.047$).

The integrative function of plot extends Schreiner et al.'s (2018) narrativity theory by showing that plot not only enhances engagement but also determines how consumers process different types of information within a story. This addresses a significant gap left unanswered by Study 1: How do content types that activate distinct processing routes in isolation function when combined in complete patient stories? The strong effects of high narrativity on transportation suggest that coherent plot structure guides consumers

through multiple content types while maintaining narrative engagement—precisely what healthcare brands aim to achieve through carefully crafted patient stories (McLeod, 2022, 2023).

Character Effects Across Studies. Study 1 revealed content-conditional character effects that challenged universal enhancement assumptions: neutral effects for physical outcome content, negative effects for psychological outcome content, and mixed effects for experience content. These findings led to the Critical Evaluation Hypothesis, which proposed that character presence may trigger analytical processing and skepticism rather than narrative engagement for certain content types.

Study 2 findings provide important context for understanding these character effects in integrated patient stories. Character presence consistently enhanced narrative engagement across multiple measures: transportation (H7a supported, $\beta = 0.159$, $p < 0.001$), identification (H7b supported, $\beta = 0.151$, $p < 0.001$), perceived similarity (H7c supported, $\beta = 0.167$, $p < 0.001$), and emotional responses (H7d supported, $\beta = 0.146$, $p < 0.001$). These effects suggest that in complete stories containing all content types, character presence functions primarily as an engagement enhancer rather than triggering the skepticism observed with isolated psychological content in Study 1.

This pattern suggests that integrated patient stories with coherent plot structure may mitigate the critical evaluation that psychological content triggered in isolation. The finding that both character presence and character absence enhanced ad effectiveness compared to control (H7e and H7f supported) further reveals how character functions differently in complete stories—providing a pathway to effectiveness without being

essential for persuasion, as evidenced by the non-significant difference between character presence and absence on ad effectiveness (difference = 0.050, $p = 0.568$).

The Critical Evaluation Hypothesis developed in Study 1 finds indirect support in Study 2 through the analysis of resistance processes. While character presence enhanced narrative engagement, identification did not significantly reduce counter-arguing (H12c not supported) or persuasion knowledge activation (H12d not supported). In fact, identification showed a non-significant trend toward increasing rather than decreasing counter-arguing ($\beta = 0.242$, $p = 0.126$). This pattern aligns with the Study 1 finding that character presence sometimes triggers analytical processing alongside narrative engagement, even in integrated patient stories with coherent plot structure.

Narrative Engagement Mechanisms Across Studies. Study 1 challenged existing narrative engagement hierarchies by revealing identification primacy in the persuasion process—identification significantly affected ad effectiveness while transportation did not. Study 2 findings provide a more nuanced understanding of this relationship in integrated patient stories, revealing complementary but distinct roles for these mechanisms.

The significant mediation effects of both transportation (H8a supported) and identification (H8b supported) on ad effectiveness demonstrate that in complete stories, both mechanisms contribute to narrative persuasion. However, their differential effects on resistance and outcomes support Study 1's suggestion that these mechanisms operate through distinct pathways. Transportation showed stronger effects on reducing counter-arguing ($\beta = -0.568$) and persuasion knowledge activation ($\beta = -0.286$) than identification. Conversely, identification showed stronger effects on emotional responses

($\beta = 0.530$) than transportation ($\beta = 0.269$). This pattern explains the apparent contradiction in Study 1, where identification showed stronger direct effects on ad effectiveness despite weaker effects on initial engagement.

These findings extend the Content-Moderated Dual-Process Model by suggesting that in integrated patient stories, transportation primarily functions through resistance reduction while identification primarily enhances emotional engagement. This distinction resolves the apparent contradiction in Study 1 and provides a more comprehensive understanding of how narrative engagement influences healthcare decision making in patient story advertising.

Plot as Integration Mechanism. Study 2's examination of plot addresses a critical question left unanswered by Study 1: How do content types that activate distinct processing routes in isolation function when combined in complete patient stories? The findings support the hypothesis that plot serves as an integration mechanism that helps organize and balance multiple content types and their associated processing routes.

The interaction effects between narrativity and character presence provide important insights into this integration function. The combination of high narrativity and character presence (Condition 1) produced the strongest transportation effects (H9a partially supported), particularly compared to low narrativity, character-absent stories (Condition 4). This pattern suggests that plot structure and character presence function as complementary rather than purely synergistic elements in patient stories, with each potentially compensating for the absence of the other.

This complementary relationship addresses a prediction from Study 1—that high-narrativity plots might enhance character presence effects for some content types while

mitigating negative effects for others. The finding that high narrativity increased character perception in character-absent conditions (H15 supported, odds ratio = 1.85, p = 0.009) further supports this integrative function. By facilitating the mental construction of characters even when none are explicitly presented, high-narrativity plots create coherent perspectives that guide consumers through integrated content types.

These findings align with the Content-Moderated Dual-Process Model's prediction that plot would function as a moderator determining which content-activated processing routes become dominant when multiple content types appear together. The strong relationship between transportation and reduced resistance processes (H12a and H12b supported) suggests that high-narrativity plots enhance observational processing while simultaneously mitigating the analytical resistance that isolated psychological content triggered in Study 1.

Moderator Effects and Healthcare Context. Study 2's examination of healthcare moderators builds directly on Study 1's findings about content-conditional processing. While Study 1 found that different content types activate distinct processing routes, Study 2 examined how consumer characteristics influence these processes in integrated patient stories. The significant moderation effects of healthcare attitudes on both transportation (H14a supported, $\beta = -0.145$, $p < 0.001$) and identification (H14g supported, $\beta = -0.124$, $p = 0.002$) pathways to ad effectiveness demonstrate that narrative persuasion in healthcare contexts depends on pre-existing attitudes.

The negative interaction effect indicates that both transportation and identification have stronger effects on ad effectiveness for consumers with less positive healthcare

attitudes. This pattern suggests that storytelling approaches may be particularly valuable for reaching consumers with initial resistance to healthcare messages.

The absence of significant moderation effects for individual differences like transportability and trait empathy (H10a-h not supported) contradicts Study 1's suggestion that these characteristics would influence processing routes in integrated patient stories. Similarly, the non-significant moderation effect of threat severity (H11a-d not supported) challenges the prediction that health threat perceptions would amplify narrative effects. These unexpected findings suggest that complete patient stories may function through more universal processes than isolated content types, with healthcare attitudes serving as the primary contextual moderator regardless of individual differences in narrative processing tendencies.

Research Questions in Context of Previous Findings. The research questions addressing character perception in character-absent conditions provide important insights for understanding the Content-Moderated Dual-Process Model in integrated patient stories. Study 1 found that character absence enhanced affective forecasting for experience content, suggesting that the absence of an identifiable character creates a “blank slate” that facilitates self-projection. Study 2 extended this finding by demonstrating that high narrativity significantly increased character perception in character-absent conditions (H15 supported, odds ratio = 1.85, p = 0.009).

However, this increased character perception did not translate into enhanced narrative engagement or persuasive outcomes (RQ2). Participants who perceived a character in character-absent stories did not show significantly higher transportation, identification, similarity, emotional responses, or ad effectiveness compared to those who

did not perceive a character. This pattern suggests that while plot structure can facilitate character perception, such perceived characters have limited persuasive impact compared to explicitly presented characters.

These findings help reconcile seemingly contradictory results from Study 1. The Blank Slate Hypothesis proposed that character absence enhances self-projection for experience content, while the Critical Evaluation Hypothesis suggested that character presence triggers skepticism for psychological content. Study 2 findings suggest that in integrated patient stories, plot structure may enable some of the benefits of character presence (coherent perspective) without triggering the skepticism that explicit characters sometimes generate. This supports the Content-Moderated Dual-Process Model's prediction that structural elements can balance competing processing routes activated by different content types.

Theoretical Integration Across Studies. The connections between Study 1 and Study 2 collectively support a comprehensive theoretical framework that explains how patient stories influence healthcare decision making. The Content-Moderated Dual-Process Model developed in Study 1 provided the foundation for understanding how content types activate distinct processing routes, while Study 2 demonstrated how plot structure and character presence organize and balance these routes in integrated patient stories.

This integration addresses what Berry et al. (2020) and McLeod (2022, 2023) identified as concerning patterns in healthcare narrative advertising while providing both theoretical understanding and practical guidance for developing more balanced approaches. By specifying how story elements—content type, identifiable character, and

imaginable plot—interact to influence persuasive outcomes through distinct processing routes, the framework explains when and why different story elements enhance or diminish persuasion rather than assuming universal enhancement effects.

The findings across both studies suggest that real-world patient stories containing multiple content types might be optimized through strategic decisions about plot structure and character presence based on which processing routes should be emphasized for specific persuasion objectives. High-narrativity plots with clear causal connections appear to enhance transportation and reduce counter-arguing, making them particularly valuable for integrating multiple content types that might otherwise trigger competing processing routes. Character presence consistently enhances narrative engagement but shows complex effects on resistance processes, suggesting strategic presentation decisions based on specific communication objectives.

Together, these findings provide a theoretical foundation for understanding how patient stories influence vulnerable healthcare consumers in this high-stakes decision context. By moving beyond universal process assumptions to a content-specific, route-activated approach that accounts for the integrative function of plot structure, this research advances our understanding of narrative persuasion while providing evidence-based guidelines for ethical and effective patient story advertising.

Limitations and Future Directions for Research

The Study 2 findings should be interpreted in light of several important limitations that inform both the generalizability of results and directions for future research. These limitations reflect inherent constraints of the experimental approach while suggesting how subsequent research might build upon this foundation.

Effect Size Considerations. The small to medium effect sizes observed across Study 2 analyses suggest that story structure and character presence function as optimization rather than transformation factors in patient story advertising. This pattern aligns with broader narrative persuasion research, where meta-analyses consistently show modest but significant effects of story features on persuasion outcomes (Braddock & Dillard, 2016; Shen et al., 2015; van Laer et al., 2014). Most relationship coefficients in Study 2 were in the small effect size range (standardized $\beta < 0.25$), with explained variance typically below 5% for main effects models. The strongest effects were observed for identification's influence on emotional responses ($\beta = 0.530$) and transportation's influence on counter-arguing ($\beta = -0.568$), suggesting that these mediating mechanisms may be particularly important for enhancing emotional engagement and reducing resistance. However, even these stronger relationships explain only a portion of the overall variance in outcomes.

Several methodological factors may contribute to these modest effect sizes. First, the single-exposure design cannot capture cumulative effects that might develop through repeated exposure to patient stories over time. Second, despite using more comprehensive stimuli than Study 1, the text-based format may not fully capture the experience of real-world patient stories. Third, the experimental context necessarily removes the high-stakes decision environment that cancer patients experience, potentially limiting ecological validity. These constraints suggest that narrativity and character presence should be viewed as strategic optimization elements rather than transformative factors—a particularly important consideration given healthcare brands' enhanced obligations to

balance persuasive effectiveness with ethical responsibility toward vulnerable consumers (Schwartz & Woloshin, 2016).

The practical significance of these modest effects takes on heightened importance in healthcare contexts, where even small improvements in communication effectiveness could meaningfully impact consumer wellbeing. As Berry et al. (2020) note, cancer patients face life-altering decisions based on limited information, making narrative evidence especially influential despite modest statistical effect sizes. The consistent pattern of story elements outperforming non-narrative control content suggests that strategic optimization of patient stories based on story structure and character presence could incrementally enhance both persuasive impact and informed decision making—addressing what Schenker et al. (2014) identify as the central tension in healthcare advertising.

Generalizability Considerations. Several factors limit the generalizability of Study 2 findings across different healthcare contexts, patient populations, and message formats. The focus on a general adult population sample rather than actual cancer patients or those actively considering treatment options represents an important boundary condition. Although the exclusion of participants with cancer history allowed for testing narrative effects without the confounding influence of prior treatment experiences, it also means the findings may not fully capture how patients with direct experience might process patient stories. This limitation is particularly relevant when considering the non-significant moderation effect of threat severity (H11a-d not supported), which challenges the prediction that health threat perceptions would amplify narrative effects. As Hlubocky et al. (2020) observe, cancer patients' vulnerability stems from the combination of

complex medical decisions and emotional distress, creating a decision context that experimental designs with general populations cannot fully simulate.

The generalizability across healthcare conditions also warrants consideration. The stimuli focused specifically on colon cancer treatment rather than other health conditions, potentially limiting applicability to different healthcare contexts. Research shows that narrative effects may vary based on condition characteristics such as perceived severity, prevalence, and social stigma (Shaffer et al., 2018a). Similarly, the focus on a single treatment approach (comprehensive cancer care) rather than comparing different treatment options may not capture how stories function in comparative healthcare decision contexts, where consumers must evaluate multiple treatment alternatives with different risk-benefit profiles.

Additionally, the text-based format of the experimental stimuli represents another generalizability constraint. While patient stories appear across multiple media channels (Park et al., 2023), this study focused exclusively on text-based stories. This limitation is significant given that healthcare brands increasingly deploy multimedia patient stories across owned, earned, and paid media channels (Willett, 2024). Research shows that presentation format can influence narrative engagement processes, with video potentially enhancing transportation while text may facilitate analytical processing (Shen et al., 2015). These format differences might interact with imaginable plot and identifiable character effects observed with text-based stimuli, potentially moderating the relationships observed in Study 2.

Measurement Considerations. The measurement approaches used in Study 2 introduce several limitations worth noting. First, while the study measured counter-

arguing and persuasion knowledge activation to address questions about resistance processes, these measures relied on self-report rather than cognitive response techniques that might capture more spontaneous resistance processes. This approach may underestimate resistance effects, particularly given that transportation's impact on counter-arguing ($\beta = -0.568$) was substantially stronger than its effect on persuasion knowledge activation ($\beta = -0.286$). Future research could employ thought-listing protocols or response latency measures to capture resistance processes more directly and spontaneously, potentially revealing more nuanced effects of story elements on resistance reduction.

Second, the measurement of character perception in character-absent conditions relied on dichotomous (yes/no) responses rather than continuous measures that might capture gradations in perception. This approach, while efficient for initial exploration of the character perception phenomenon, limits understanding of how strongly participants perceived characters and what specific aspects of characters they constructed mentally. More detailed measures of character perception characteristics, including demographic attributes, personality traits, and emotional states, would provide richer understanding of how narrativity shapes character construction in character-absent stories.

Third, the research design did not allow for assessing long-term effects or behavioral outcomes beyond intentions. This limitation is particularly relevant given that patient stories might influence decision processes over extended timeframes rather than immediately after exposure. The emphasis on immediate perceptual and attitudinal measures may not fully capture how patient stories influence actual healthcare decisions

in real-world contexts, where multiple exposures to various messages occur over time and in different contexts.

The Role of Content in Complete Stories. While Study 2 advanced beyond Study 1 by examining complete stories that integrated multiple content types, the research design did not manipulate content emphasis or sequence to determine how different content combinations might interact with narrativity and character presence. Based on Study 1 findings that different content types activate distinct processing routes when presented in isolation, future research should examine how content emphasis, sequence, and integration within high-narrativity plots influence consumer response.

Several questions about content-structure interactions remain unanswered: Do the content-specific processing routes identified in Study 1 operate simultaneously or hierarchically when content types appear together in high-narrativity stories? Does the integration quality of multiple content types moderate the effectiveness of high-narrativity structures and character presence? How do consumers reconcile potentially conflicting information from different content types when they appear in the same story? Addressing these questions would require more complex experimental designs that systematically vary content emphasis within story structures, potentially using process-tracing methods to understand how consumers integrate multiple content types when presented in high-narrativity formats.

The finding that transportation and identification demonstrated strong and distinct relationships with different outcome measures—transportation with resistance reduction and identification with emotional response—suggests that different content types within the same story might activate distinct processing routes even when structured within a

coherent story. Future research might examine whether certain content types serve as processing “anchors” that influence how other content types are processed within integrated stories, building on Study 1’s finding that physical outcome content functioned as a cognitive anchor enhancing beliefs across domains.

Character Perception as an Emergent Phenomenon. The research questions addressing character perception in character-absent conditions revealed an intriguing phenomenon that warrants further investigation: high narrativity significantly increased the likelihood of character perception compared to low narrativity (odds ratio = 1.85, $p = 0.009$), yet this perception did not translate into enhanced narrative engagement or ad effectiveness. This finding suggests that character perception in character-absent stories may represent an emergent cognitive phenomenon distinct from the engagement fostered by explicitly presented characters.

The limited explanatory power of both individual differences ($\text{Pseudo-}R^2 = 0.032$) and healthcare involvement models ($\text{Pseudo-}R^2 = 0.078$) in predicting character perception suggests that this phenomenon may be driven by factors not measured in the current study, such as narrative processing styles, visualization tendencies, or perspective-taking abilities. Future research could employ qualitative methods such as in-depth interviews or think-aloud protocols to understand how and why some consumers construct characters in character-absent stories while others do not. Additionally, neuroimaging studies might reveal whether similar neural pathways are activated when processing stories with explicit characters versus mentally constructing characters in character-absent stories.

The finding that even when characters were perceived in character-absent stories, the effects did not mirror those of explicitly presented characters suggests fundamental differences in how perceived versus presented characters function in narrative processing. This distinction has important implications for theories of narrative engagement that have typically focused on explicit character presentation rather than emergent character perception. Future research might explore whether training consumers to engage in character construction could enhance narrative effects, particularly for experience-focused content where character absence facilitated affective forecasting in Study 1.

Healthcare Context Specificity. The healthcare moderator findings—particularly that healthcare attitudes significantly moderated both transportation (H14a supported) and identification (H14g supported) effects on ad effectiveness—raise important questions about context specificity in narrative persuasion. The negative interaction effect, indicating stronger narrative effects for those with less positive healthcare attitudes, suggests that storytelling approaches may function differently in healthcare contexts compared to other consumer domains.

The limited moderation by other healthcare variables (access, insurance status, health status, quality of life) warrants additional investigation, particularly given healthcare brands' enhanced obligations to vulnerable populations with limited healthcare access. Future research could examine whether narrative effects vary systematically across healthcare contexts with different involvement levels, risk profiles, and decision complexities. This might involve comparing narrative effects across preventive, acute, and chronic care contexts to determine whether the attitude moderation effect observed in Study 2 generalizes across healthcare domains.

The non-significant moderation by health status and quality of life measures is particularly surprising given the visceral congruency framework (Freling et al., 2020), which suggests that health-related vulnerability should enhance narrative effects. This pattern suggests that subjective attitudes toward healthcare may be more important moderators of narrative effects than objective health status measures, an insight that warrants further exploration through studies that directly compare subjective and objective health moderators across diverse healthcare contexts.

Future Research Directions. Building on Study 2 findings and addressing the limitations identified above, several promising research directions emerge. First, longitudinal studies tracking narrative effects over time could address the limitation of single-exposure designs while providing insight into how patient stories influence decision processes throughout the patient journey. Such studies could examine whether narrative effects strengthen or weaken with repeated exposure and how they interact with other information sources over time.

Second, multimedia comparisons could extend Study 2 findings by examining how narrativity and character presence function across different presentation formats, including text, audio, video, and interactive media. These studies could determine whether the processing routes activated by these story elements vary systematically based on presentation format, addressing the text-based limitation of the current study while providing practical guidance for multimedia patient story development.

Third, process-tracing methodologies could enhance understanding of the cognitive and emotional mechanisms through which imaginable plot and identifiable character achieve their effects. Eye-tracking studies could reveal attention patterns across

story elements, while psychophysiological measures could capture emotional engagement more directly than self-report. These approaches would address measurement limitations while providing deeper insight into the mechanisms identified in Study 2.

Fourth, field studies in actual healthcare settings could enhance ecological validity while addressing the generalizability limitations of experimental studies with general population samples. These studies could examine how patients at different stages of the healthcare journey respond to story elements, potentially identifying optimal story features for specific decision points and healthcare contexts.

Finally, ethical framework development could build on Study 2 findings to create guidelines for the responsible use of storytelling in healthcare advertising. This research direction would address the broader implications of narrative influence on vulnerable populations, building on the findings that story elements consistently enhanced persuasion compared to non-storytelling approaches. By integrating empirical findings with ethical principles, such frameworks could help healthcare brands balance persuasive effectiveness with responsible communication to vulnerable consumers.

These future research directions collectively address the limitations of Study 2 while extending its findings in theoretically and practically valuable directions. By building on the understanding of how imaginable plot and identifiable character function in patient stories, this research agenda would contribute to both narrative persuasion theory and ethical healthcare communication practice.

Conclusion

Study 2 contributes to narrative persuasion theory by demonstrating that plot structure and character presence function as complementary elements in patient story

advertising, challenging universal enhancement assumptions and revealing more nuanced relationships between story elements, engagement mechanisms, and persuasive outcomes. The findings support a revised theoretical model that positions transportation and identification as distinct mechanisms with different relationships to resistance reduction and emotional engagement, while highlighting healthcare attitudes as a critical moderator of narrative effects. This integrated theoretical perspective addresses significant gaps in both the Narrative Immersion Model (NIM; Shaffer et al., 2018a) and the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) by explaining how story elements work through different mechanisms to achieve specific persuasive outcomes in healthcare contexts.

The findings reveal several key patterns that transform understanding of narrative persuasion in patient story advertising. First, high narrativity plots consistently enhanced transportation while reducing counter-arguing, demonstrating that coherent plot structure facilitates both emotional engagement and message acceptance. Second, character presence consistently enhanced transportation, identification, similarity, and emotional responses, supporting the role of identifiable characters in fostering narrative engagement. Third, both transportation and identification functioned as significant mediators, though with distinct relationships to resistance reduction and emotional engagement—transportation more strongly reduced counter-arguing while identification more strongly enhanced emotional responses. Fourth, healthcare attitudes emerged as a critical moderator, with narrative effects stronger for individuals with less positive healthcare attitudes, suggesting that storytelling approaches may be particularly valuable for reaching skeptical consumers.

These patterns collectively support a revised theoretical model with important implications for both narrative persuasion theory and healthcare communication practice. The traditional emphasis on transportation as the primary persuasion mechanism (Green & Brock, 2000, 2002) requires reconsideration, as identification demonstrated a stronger relationship with emotional responses—a key determinant of healthcare decisions. Similarly, the finding that transportation, not identification, primarily reduced resistance processes challenges assumptions about how story elements influence message acceptance. The clear mediating role of both transportation and identification in the character presence pathway confirms that narrative engagement serves as the primary mechanism through which character presence influences ad effectiveness, while the healthcare attitude moderation suggests storytelling approaches may be particularly valuable for reaching consumers with initial resistance to healthcare messages.

The integration of Study 1 and Study 2 findings advances toward a comprehensive theoretical understanding of patient story advertising. While Study 1 demonstrated that content type fundamentally moderates how characters function when content types are presented in isolation, Study 2 reveals how narrativity and character presence function when content types are integrated in complete stories. This progression from isolated components to integrated stories addresses Berry et al.'s (2020) observation that healthcare brands strategically combine multiple content types with identifiable characters and coherent plot structures to influence consumer healthcare decisions. The integration of content-moderated dual processing (Study 1) with the insights about plot structure and character presence (Study 2) provides a more comprehensive framework for

understanding how patient stories influence vulnerable healthcare consumers in this high-stakes decision context.

For healthcare communication practice, these findings suggest several essential approaches for patient story design. First, healthcare communicators should prioritize coherent plot structures with explicit temporal sequences and clear cause-effect relationships, as high narrativity consistently enhanced engagement while reducing resistance. Second, character presence should be incorporated strategically to enhance identification and emotional engagement, particularly when emotional connection is a primary communication goal. Third, healthcare communicators should recognize that different story elements operate through distinct mechanisms—plot structure primarily enhances transportation and reduces counter-arguing, while character presence primarily enhances identification and emotional responses. Finally, storytelling approaches may be particularly valuable for reaching consumers with less positive healthcare attitudes, suggesting strategic applications for overcoming initial skepticism toward healthcare messages.

These practical applications address what Schenker et al. (2014) and Schwartz and Woloshin (2016) identify as a central ethical concern in healthcare advertising: how storytelling approaches might help or hinder informed decision making for vulnerable consumers. By identifying specific mechanisms through which story elements influence consumer response, this research provides an empirical framework for evaluating whether specific storytelling approaches enhance or diminish informed decision making. The finding that high narrativity reduced counter-arguing while maintaining message

processing suggests that well-structured stories may enhance rather than undermine critical evaluation—an important consideration for ethical healthcare communication.

In conclusion, Study 2 advances both theoretical understanding and practical application by revealing how story structure and character presence function as complementary elements in patient story advertising. By demonstrating that different story elements operate through distinct but interconnected mechanisms to influence persuasive outcomes, this research provides a foundation for developing more effective and responsible patient stories. As healthcare brands continue to use patient stories to influence vulnerable consumers' treatment decisions, this evidence-based understanding becomes increasingly important for balancing persuasive effectiveness with ethical responsibility to support informed healthcare decision making.

Chapter 5: General Discussion

This dissertation addresses the problem of how patient story advertising influences vulnerable healthcare consumers' decision making in the high-stakes context of cancer care. Nearly 2 million Americans receive a cancer diagnosis annually, a life-altering event defined by physical, emotional, financial, and psychological uncertainty (Berry et al., 2020; Collins, 2024; Hlubocky et al., 2020; McLeod, 2022). In this vulnerable state, many patients turn to cancer center advertising for guidance, particularly patient stories that showcase patients who have survived cancer through a healthcare brand's intervention. While these carefully crafted stories provide hope through promises of survival and exceptional care, concerns arise about whether they help or hinder informed healthcare decision making (Kreuter et al., 2007; Szabo, 2017). This concern is magnified by the scale of healthcare services advertising investment, with healthcare brands spending \$2.9 billion annually to influence consumer healthcare decisions (Schwartz & Woloshin, 2019).

Two complementary experiments provided empirical evidence of how specific story features influence consumer response to patient story advertising. Study 1 deconstructed patient stories into their component content types to understand how content (physical outcome, psychological outcome, experience) and character presence function in isolation. This systematic deconstruction revealed content-conditional effects that challenged universal enhancement assumptions: different content types activated distinct processing routes, with character presence simultaneously enhancing narrative engagement while sometimes triggering skepticism. The Content-Moderated Dual-Process Model (CMDPM) developed through Study 1 positioned content type as the

primary moderator determining which processing routes are activated and how story elements function when content types are presented in isolation. Study 2 examined how plot structure (high vs. low narrativity) and character presence influence narrative persuasion in complete patient stories that integrate all content types. This progression from isolated components to integrated stories addresses research that shows healthcare brands strategically combine multiple content types with identifiable characters and coherent plot structures to influence consumer healthcare decisions (McLeod, 2022, 2023; Willett, 2024).

The findings revealed more complex patterns than predicted by either the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) or the Narrative Immersion Model (NIM; Shaffer et al., 2018a) alone. Study 1 demonstrated that content type fundamentally moderates how story elements function, with physical outcome content showing unexpected versatility, psychological outcome content triggering critical evaluation, and experience content activating competing observational and simulation routes. Study 2 revealed that transportation and identification function as parallel rather than sequential processes with different downstream consequences—transportation primarily reduces resistance and directly influences persuasion outcomes, while identification primarily enhances emotional engagement. Plot structure and character presence functioned as complementary rather than purely synergistic elements, with different configurations achieving similar outcomes through different pathways.

Healthcare attitudes emerged as a critical moderator, with narrative effects stronger for individuals with less positive healthcare attitudes, suggesting that storytelling approaches may be particularly valuable for reaching skeptical consumers.

These findings collectively support the Patient Story Advertising Model (PSAM) developed through this research; an integrated theoretical framework that explains how different story features work through distinct but complementary mechanisms to influence consumer healthcare decisions. The PSAM positions content type as the fundamental moderator determining which processing routes are activated, while plot structure functions as an integrative mechanism that organizes these routes in complete patient stories. Rather than assuming all story elements must be maximized to enhance effectiveness, the model acknowledges that different story elements serve distinct functions, with effective patient stories strategically configured to achieve specific persuasion objectives while supporting informed decision making.

This General Discussion integrates findings from both studies into a cohesive theoretical framework while articulating practical applications and ethical implications. The discussion proceeds in five parts. First, it presents the integrated theoretical framework of the PSAM, explaining how it builds upon and extends existing narrative persuasion theories. Second, it outlines core theoretical propositions derived from the empirical findings that guide understanding of patient story advertising persuasion. Third, it translates these theoretical insights into practical applications for healthcare communicators, providing evidence-based guidelines for patient story design. Fourth, it addresses ethical implications of these findings, particularly regarding vulnerable consumer protection and informed decision making. Finally, it acknowledges limitations of the research while suggesting directions for future investigation.

Theoretical Framework

The Patient Story Advertising Model (PSAM) emerges as an empirically derived theoretical framework grounded in the experimental findings of this dissertation rather than as an a priori conceptual structure. This approach aligns with Chang's (2017) emphasis that advertising experiments should both test existing theories and contribute to theory-building through systematic examination of causal relationships. By deliberately progressing from isolated content components in Study 1 to integrated patient story structures in Study 2, this dissertation has identified specific mechanisms through which patient stories influence consumer healthcare decisions. The PSAM integrates these empirical insights into a comprehensive framework that explains how content type, character presence, and plot structure function both independently and collectively to shape consumer response to patient story advertising. Figure 16 shows the model.

[Insert Figure 16 here]

The PSAM represents a significant theoretical advance by addressing what Sun et al. (2024) identify as a critical gap in narrative persuasion research: understanding which story features matter most and why. Unlike traditional narrative persuasion theories that assume universal enhancement effects (Green & Brock, 2000, 2002; van Laer et al., 2014; Zillmann 1999, 2006), the PSAM positions content type as the fundamental moderator that determines which processing routes are activated, with plot structure functioning as an integration mechanism that organizes these routes in complete patient stories. This content-first, structure-second approach challenges the prevailing structure-focused perspective in narrative persuasion research while explaining the complex, often contradictory patterns observed across both experimental studies in this dissertation.

The model synthesizes key insights from both studies to create an integrated theoretical framework that explains both component-level effects and their manifestation in complete patient stories. Study 1 demonstrated that different content types activate distinct processing routes when presented in isolation: physical outcome content activated complementary observational and analytical routes, psychological outcome content primarily activated analytical routes with critical evaluation, and experience content activated competing observational and simulation routes. Study 2 revealed that transportation and identification function as parallel rather than sequential processes with different downstream consequences—transportation primarily reducing resistance while identification primarily enhancing emotional engagement. These empirical patterns collectively support a dual-pathway model where content type establishes processing routes while structural elements of character and plot guide how these routes manifest in complete patient stories.

The PSAM addresses limitations in both content-focused and structure-focused narrative theories by explaining how and why different story elements influence consumer response through distinct but interconnected mechanisms. The Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) correctly identifies storyteller antecedents (identifiable characters, imaginable plots, and verisimilitude) that influence narrative transportation but fails to account for content-specific processing routes or the complementary rather than purely synergistic relationships between story elements. Similarly, the Narrative Immersion Model (NIM; Shaffer et al., 2018a) correctly identifies content types as critical determinants of narrative effects but does not fully explain how structural elements organize and balance multiple content types in

complete stories. The PSAM integrates these perspectives by positioning content type as the primary determinant of which processing routes are activated, with structural elements determining how these routes manifest in integrated patient stories.

This integrated theoretical framework makes four key contributions to narrative persuasion theory. First, it positions content type as the fundamental moderator that determines which processing routes are activated and how other story elements function, challenging universal enhancement assumptions common in narrative persuasion research. Second, it demonstrates that transportation and identification function as distinct rather than sequential mechanisms with different consequences for resistance reduction and emotional engagement. Third, it shows that story elements function as complementary rather than purely synergistic factors, with different configurations achieving similar outcomes through different pathways. Fourth, it identifies healthcare attitudes as a critical contextual moderator, with narrative effects stronger for individuals with less positive healthcare attitudes. These contributions collectively transform understanding of how patient stories influence vulnerable healthcare consumers in high-stakes decision contexts, addressing Berry et al.'s (2020) call for systematic experimental investigation of how patient story features influence consumer healthcare decisions.

Key Theoretical Integrations

The Patient Story Advertising Model (PSAM) integrates findings from both studies around three critical theoretical junctures: content-structure integration, mechanism integration, and moderation integration. These integration points represent the core theoretical advances of this dissertation, addressing limitations in both content-

focused and structure-focused narrative persuasion theories while providing a more comprehensive framework for understanding patient story advertising.

Content-Structure Integration. The most significant theoretical integration in the PSAM concerns the relationship between content type identified in Study 1 and plot structure examined in Study 2. While the Content-Moderated Dual-Process Model (CMDPM) established via Study 1 that content type fundamentally moderates how character presence functions when content types are presented in isolation, Study 2 demonstrated that plot structure serves as an integrative mechanism that organizes content-activated processing routes in complete patient stories. High-narrativity plots significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$) and reduced counter-arguing ($\beta = -0.066$, $p = 0.068$) across integrated content types, suggesting that coherent temporal and causal sequences facilitate engagement with multiple content types simultaneously. This integration bridges a theoretical gap between content-focused approaches like the Narrative Immersion Model (Shaffer et al., 2018a) and structure-focused frameworks like the Extended Transportation-Imagery Model (van Laer et al., 2014), which emphasizes structural elements but provides limited guidance on how content shapes narrative processing. This integration also addresses what McLeod (2022, 2023) and Willett (2024) identified as the strategic combination of physical outcomes, psychological transformation, and treatment experiences in actual patient stories.

The content-structure integration extends Schreiner et al.'s (2018) narrativity theory by demonstrating that plot not only enhances engagement but also determines how consumers process different types of information within a story. Study 1 findings revealed that physical outcome content activated complementary observational and

analytical routes, psychological outcome content triggered critical evaluation through the analytical route, and experience content activated competing observational and simulation routes. Study 2 showed that high-narrativity plots enhanced transportation while reducing counter-arguing, suggesting they help organize and balance these competing routes in integrated stories. This organization function explains why actual patient stories may effectively combine multiple content types without triggering the content-specific resistance observed in isolated psychological content from Study 1. This finding extends Shaffer et al.'s (2018a) Narrative Immersion Model by specifying how plot structure helps organize multiple content types and their associated processing routes into a coherent story that engages consumers while minimizing resistance.

The PSAM positions content as the primary determinant of which processing routes are activated, with plot structure functioning as the organizational framework that determines how these routes manifest in complete stories. This hierarchical relationship explains why patient stories with similar content may produce different effects based on their structural organization. When multiple content types appear together in high-narrativity plots, transportation's effect on reducing counter-arguing ($\beta = -0.568$, $p < .001$) appears to mitigate the critical evaluation that psychological content triggered in isolation. This pattern supports observations that healthcare brands strategically craft patient stories with coherent plot structures to maximize persuasive impact while minimizing resistance, particularly for transformative psychological claims that might otherwise trigger skepticism.

Mechanism Integration. The second key integration point concerns the distinct but complementary roles of transportation and identification in patient story persuasion.

Study 1 challenged the traditional emphasis on transportation by revealing identification primacy, where identification significantly affected ad effectiveness ($\beta = 0.087$, $p = .014$) while transportation did not ($\beta = 0.035$, $p = .404$). Study 2 refined this understanding by demonstrating that transportation and identification function as parallel rather than sequential processes with different downstream consequences—transportation primarily reducing resistance while identification primarily enhancing emotional engagement. Transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), while identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$).

This mechanism integration challenges the hierarchical progression of narrative engagement proposed in the Narrative Immersion Model (NIM; Shaffer et al., 2018a), which conceptualizes narrative processing as a sequential progression from interest through involvement (identification) to immersion (transportation). Instead, the PSAM positions transportation and identification as distinct mechanisms with different persuasive functions—transportation creates immersion that reduces resistance to persuasion, while identification facilitates perspective-taking that enhances emotional engagement. The significant mediation of character presence effects on ad effectiveness through both transportation (indirect effect $\beta = 0.116$, $p < 0.001$) and identification (indirect effect $\beta = 0.104$, $p < 0.001$) in Study 2 demonstrates that both mechanisms contribute meaningfully to persuasion through different pathways. This aligns with Tal-Or and Cohen's (2010) distinction between transportation as story-focused immersion versus identification as character-focused perspective-taking.

This differentiated model addresses limitations in both Green and Brock's (2000, 2002) transportation theory, which emphasizes resistance reduction without fully accounting for identification effects, and Cohen's (2001) identification theory, which focuses on perspective-taking without addressing resistance processes. By specifying distinct roles for these mechanisms, the PSAM explains the apparent contradiction between Study 1's identification primacy finding and Study 2's demonstration that transportation more strongly reduced resistance processes. In isolated content, identification's perspective-taking function may directly influence persuasion, while in integrated stories, transportation and identification work through complementary pathways—transportation reducing resistance while identification enhances emotional connection.

Moderation Integration. The third key integration point involves the moderating role of healthcare context factors, particularly healthcare attitudes. Study 2 revealed that healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, with stronger effects observed for individuals with less positive healthcare attitudes. This finding challenges the assumption that narrative persuasion works most effectively for consumers already positively disposed toward the message domain, instead suggesting stories may serve as bridges to engage healthcare-skeptical consumers.

This moderation integration extends the visceral congruency framework (Freling et al., 2020) by demonstrating that in healthcare contexts, storytelling approaches may be particularly valuable for reaching skeptical consumers rather than reinforcing existing positive attitudes. While Freling et al. (2020) suggest healthcare contexts amplify certain

moderator effects by increasing both personal relevance and threat severity, they do not specify the direction of these effects. The PSAM provides this specificity, showing that narrative engagement may be especially persuasive for healthcare-skeptical consumers—a critical insight for understanding how patient stories influence vulnerable healthcare consumers.

The selective moderation pattern—where healthcare attitudes significantly moderate narrative effects while most other variables do not—suggests that domain-specific attitudes play a particularly important role in healthcare narrative persuasion. This aligns with Dutta-Bergman's (2004) research showing healthcare attitudes significantly influence how consumers process healthcare messages, but the findings extend this work by specifying that these attitudes particularly moderate narrative engagement effects rather than influencing all processing routes equally. This distinction explains why certain consumers might be more susceptible to patient story influence, providing valuable insight for both theoretical understanding and ethical applications of patient story advertising.

These three integration points collectively transform understanding of how patient stories influence healthcare consumers by demonstrating that content type, story structure, narrative mechanisms, and healthcare attitudes interact in complex but predictable ways. The PSAM provides a unified theoretical framework that explains both component-level effects and their manifestation in complete patient stories, addressing what Berry et al. (2020) and McLeod (2022, 2023) identify as concerning patterns in healthcare narrative advertising while providing both theoretical understanding and practical guidance for developing more balanced approaches.

Model Components

The Patient Story Advertising Model (PSAM) comprises four interrelated components that together explain how patient stories influence consumer healthcare decisions: content type as a fundamental moderator, plot structure and character presence as complementary elements, dual mechanism pathways, and healthcare context factors. Each component represents an empirically validated aspect of narrative persuasion in healthcare contexts.

Content Type as Fundamental Moderator. The PSAM positions content type as the fundamental moderator that determines which processing routes are activated when consumers encounter patient stories. Study 1 demonstrated that different content types activate distinct processing routes when presented in isolation: physical outcome content activated complementary observational and analytical routes, psychological outcome content primarily activated analytical routes with critical evaluation, and experience content activated competing observational and simulation routes. This component extends the Narrative Immersion Model's (NIM; Shaffer et al., 2018a) emphasis on content type while providing greater specificity about how different content types function.

Physical outcome content demonstrated remarkable persuasive versatility in Study 1, functioning as a cognitive anchor that enhanced beliefs across domains rather than only in its matched domain. This content type was the only one to consistently improve overall ad effectiveness compared to control ($\beta = 0.196$, $p = .006$ with character; $\beta = 0.153$, $p = .038$ without character), showing unexpected dominance across belief measures. This broad persuasive impact aligns with Shaffer et al.'s (2018a) model, which suggests

outcome content is associated with story-consistent attitudes and behaviors, though the cross-domain influence extends beyond their original predictions. The concrete nature of physical outcomes (e.g., tumor reduction, symptom improvement) appeared to provide accessible evidence of healthcare brand quality that bridged both narrative and analytical processing routes, validating McLeod's (2022) observation that healthcare brands strategically emphasize physical outcomes in patient stories.

Psychological outcome content activated primarily analytical routes with heightened scrutiny when presented through character testimonials. This pattern, explained by the Critical Evaluation Hypothesis developed in Study 1, suggests that for abstract psychological claims (e.g., emotional wellbeing, life perspective changes), character presence triggered heightened scrutiny and skepticism rather than transportation or identification. The finding that psychological content with character present significantly decreased brand meaning belief ($\beta = -0.214$, $p = .049$) and overall brand beliefs ($\beta = -0.204$, $p = .046$) compared to control directly contradicts exemplification theory's prediction that exemplars enhance rather than diminish persuasion (Zillmann, 1999, 2006).

Experience content uniquely activated competing observational and simulation routes, creating a fundamental trade-off in how character presence functioned. This finding aligns with Shaffer et al.'s (2016) research showing that experience content can improve decision quality by helping consumers form more accurate predictions about future emotional responses, particularly when it facilitates mental simulation of treatment experiences. While character presence enhanced brand beliefs for experience content ($\beta = 0.218$, $p = .034$), it significantly decreased affective forecasting ability compared to

character absence ($\beta = -0.511$, $p = .001$). This finding supports the Blank Slate Hypothesis developed in Study 1, which suggests that the absence of an identifiable character creates a projective space that facilitates mental simulation and self-projection into future emotional states. The PSAM incorporates this trade-off as a fundamental aspect of experience content, suggesting strategic decisions about character presence should consider whether observational learning (through identifiable characters) or self-referential simulation (through character absence) represents the primary communication objective.

Plot Structure and Character Presence as Complementary Elements. The PSAM positions plot structure and character presence as complementary rather than purely synergistic elements that shape how content-activated routes manifest in complete patient stories. Study 2 revealed that different configurations of these elements could achieve similar outcomes through different pathways, challenging the assumption that all story elements must be maximized to enhance effectiveness. This complementary perspective challenges the Extended Transportation-Imagery Model's assumption that storyteller antecedents work together additively to enhance transportation (van Laer et al., 2014), suggesting instead a more nuanced relationship where different configurations achieve similar outcomes through distinct pathways. This relationship addresses what McLeod (2022, 2023) and Willett (2024) identify as the strategic integration of structure and character in actual patient stories.

Plot structure, conceptualized as narrativity, significantly influenced how integrated content was processed in Study 2. High narrativity significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$), marginally reduced counter-arguing ($\beta = -0.066$, p

= 0.068), and significantly enhanced ad effectiveness compared to control ($\beta = 0.166$, $p < 0.001$). These effects suggest that coherent temporal and causal sequences facilitate immersion in the narrative world while simultaneously reducing resistance to persuasion—a finding that extends Schreiner et al.’s (2018) narrativity theory by demonstrating that plot not only enhances engagement but also determines how consumers process different types of information within a story.

Character presence consistently enhanced narrative engagement processes in Study 2, including transportation ($\beta = 0.159$, $p < 0.001$), identification ($\beta = 0.151$, $p < 0.001$), perceived similarity ($\beta = 0.167$, $p < 0.001$), and emotional responses ($\beta = 0.146$, $p < 0.001$). However, the relationship between character presence and ad effectiveness revealed a more nuanced pattern. While both character-present and character-absent conditions significantly improved ad effectiveness compared to the control condition (present: $\beta = 0.157$, $p < 0.001$; absent: $\beta = 0.126$, $p = 0.005$), the difference between these conditions was not statistically significant (difference = 0.050, $p = 0.568$). This pattern suggests that while identifiable characters enhance narrative engagement, their direct contribution to persuasive outcomes is more limited than exemplification theory would predict (Zillmann, 1999, 2006).

The interaction between plot structure and character presence revealed complementary rather than purely synergistic effects. While the combination of high narrativity and character presence (Condition 1) showed advantages in transportation compared to some conditions, it did not consistently outperform all alternatives as would be expected if these elements functioned synergistically. This pattern suggests that strength in one story element (high narrativity or character presence) may partially

compensate for weakness in another, providing strategic flexibility in patient story design. The PSAM incorporates this complementary relationship as a core component, explaining why different configurations of story elements might achieve similar outcomes through different processing routes.

Dual Mechanism Pathways. The PSAM conceptualizes transportation and identification as distinct mechanisms with different persuasive functions—transportation creating immersion that reduces resistance to persuasion, while identification facilitating perspective-taking that enhances emotional engagement. This dual pathway perspective explains the complex patterns observed across both studies and addresses limitations in both Green and Brock's (2000, 2002) transportation theory and Cohen's (2001, 2017) identification theory.

Study 2 demonstrated that transportation and identification operated through distinct pathways with different downstream consequences. Transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), while identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$). These differentiated effects challenge the hierarchical assumption in the NIM (Shaffer et al., 2018a) that transportation represents a deeper level of narrative engagement than identification, instead suggesting these processes serve distinct functions in narrative persuasion.

The significant mediation of character presence effects on ad effectiveness through both transportation (indirect effect $\beta = 0.116$, $p < 0.001$) and identification (indirect effect $\beta = 0.104$, $p < 0.001$) in Study 2 demonstrates that both mechanisms

contribute meaningfully to persuasion through different pathways. This dual pathway perspective explains the apparent contradiction between Study 1's identification primacy finding and Study 2's demonstration that transportation more strongly reduced resistance processes. In isolated content, identification's perspective-taking function may directly influence persuasion, while in integrated stories, transportation and identification work through complementary pathways—transportation reducing resistance while identification enhances emotional connection.

The PSAM incorporates this dual mechanism perspective as a core component, suggesting that different story configurations may strategically emphasize either transportation (for reducing resistance) or identification (for enhancing emotional engagement) based on specific communication objectives. This component addresses Sun et al.'s (2024) call for more nuanced understanding of how narrative mechanisms operate in different contexts, providing greater specificity about when and why transportation versus identification might play a more dominant role in persuasion.

Healthcare Context Factors. The final component of the PSAM involves healthcare context factors that moderate narrative effects, particularly healthcare attitudes. Study 2 revealed that healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, with stronger effects observed for individuals with less positive healthcare attitudes. This pattern challenges the assumption that narrative persuasion works most effectively for consumers already positively disposed toward the message domain, instead suggesting stories may serve as bridges to engage healthcare-skeptical consumers.

The selective moderation pattern—where healthcare attitudes significantly moderate narrative effects while most other variables do not—suggests that domain-specific attitudes play a particularly important role in healthcare narrative persuasion. This aligns with Dutta-Bergman’s (2004) research showing healthcare attitudes significantly influence how consumers process healthcare messages but extends this work by specifying that these attitudes particularly moderate narrative engagement effects rather than influencing all processing routes equally.

The PSAM incorporates healthcare context factors as a critical component that determines for whom storytelling approaches might be most effective. This perspective extends the visceral congruency framework (Freling et al., 2020) by demonstrating that in healthcare contexts, storytelling approaches may be particularly valuable for reaching skeptical consumers rather than reinforcing existing positive attitudes. This component has particular significance for healthcare brands seeking to influence vulnerable consumers, as it suggests that patient stories may serve as bridges to engage consumers who might otherwise resist traditional healthcare marketing approaches.

These four components collectively form an integrated theoretical framework that explains how patient stories influence consumer healthcare decisions. The PSAM positions content type as the fundamental moderator that determines which processing routes are activated, plot structure and character presence as complementary elements that shape how these routes manifest in complete stories, transportation and identification as distinct mechanisms with different persuasive functions, and healthcare attitudes as critical contextual moderators that determine for whom storytelling approaches might be most effective. This integrated model addresses limitations in both content-focused and

structure-focused narrative theories while providing a more comprehensive framework for understanding patient story advertising in healthcare contexts.

Theoretical Positioning

The Patient Story Advertising Model (PSAM) strategically positions itself within the broader landscape of narrative persuasion theory by integrating and extending key theoretical frameworks while addressing their limitations. The model maintains connections with established narrative theories while transforming understanding of how patient stories influence healthcare consumers. This section explicates the theoretical positioning of the PSAM in relation to four fundamental frameworks: the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014), the Narrative Immersion Model (NIM; Shaffer et al., 2018a), exemplification theory (Zillmann, 1999, 2006), and narrativity theory (Schreiner et al., 2018).

Connection to Extended Transportation-Imagery Model. The PSAM builds upon van Laer et al.'s (2014) Extended Transportation-Imagery Model (ETIM) while addressing its limitations in the healthcare context. The ETIM identifies three storyteller antecedents—identifiable characters, imaginable plots, and verisimilitude—that enhance narrative transportation and subsequent persuasion. While empirical findings from this dissertation support some ETIM propositions, they challenge others in ways that advance theoretical understanding of narrative persuasion.

The PSAM maintains ETIM's emphasis on identifiable character as a significant storyteller antecedent. Character presence consistently enhanced transportation in both studies (Study 1: $\beta = 0.201$, $p < .001$; Study 2: $\beta = 0.159$, $p < 0.001$), supporting van Laer et al.'s (2014) proposition that identifiable characters facilitate mental entry into the story

world. Similarly, imaginable plot, operationalized as high narrativity in Study 2, significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$), aligning with ETIM's prediction that well-structured plots enhance immersion in the story world. These findings validate core ETIM propositions about storyteller antecedents while providing empirical evidence in the specific context of patient story advertising.

However, the PSAM fundamentally challenges ETIM's universal enhancement assumption by demonstrating that content type moderates how these storyteller antecedents function. Study 1 revealed content-conditional character effects that contradict ETIM's proposition that identifiable characters uniformly enhance transportation and persuasion: neutral effects for physical outcome content, negative effects for psychological outcome content, and mixed effects for experience content. The Critical Evaluation Hypothesis developed through Study 1 directly challenges ETIM by showing that for abstract psychological claims, character presence triggered skepticism rather than the enhanced engagement that ETIM would predict. This content-conditional effect suggests ETIM requires refinement to account for healthcare decision contexts where consumers may engage in more critical evaluation of narrative claims.

The PSAM also challenges ETIM's assumption that storyteller antecedents work together in an additive fashion to enhance transportation. Study 2 revealed complementary rather than purely additive relationships between story elements, with different configurations achieving similar outcomes through different pathways. This finding contradicts ETIM's implicit assumption that storyteller antecedents should be maximized across all dimensions to enhance persuasion, instead suggesting a more nuanced approach where strength in one element may partially compensate for weakness

in another. The PSAM's positioning of story elements as complementary factors extends ETIM by acknowledging the strategic flexibility that healthcare brands require when developing patient stories for diverse communication objectives.

Additionally, the PSAM extends ETIM by specifying dual mechanism pathways through which stories influence persuasion. While ETIM focuses primarily on transportation as the central mechanism for narrative persuasion, the PSAM demonstrates that identification serves an equally important but distinct function—enhancing emotional engagement rather than reducing resistance. This dual pathway perspective addresses a significant limitation in ETIM's transportation-centric approach, acknowledging Cohen's (2001, 2017) emphasis on identification as a distinct perspective-taking process rather than merely a component of transportation. This perspective also aligns with meta-analytic evidence showing that character-recipient similarity significantly influences identification ($d = 0.14$) but has more limited direct effects on transportation ($d = 0.13$) or resistance reduction ($d = -0.10$) (Chen et al., 2023).

Connection to Narrative Immersion Model. The PSAM builds upon Shaffer et al.'s (2018a) Narrative Immersion Model (NIM) while providing greater specificity about how different content types function in healthcare contexts. The NIM identifies content types as critical determinants of narrative effects and conceptualizes narrative engagement as a hierarchical process progressing from interest through involvement (identification) to immersion (transportation). The PSAM maintains the NIM's content-focused approach while refining understanding of content-specific effects and challenging its hierarchical conceptualization of narrative engagement.

The PSAM supports the NIM's emphasis on content type as a fundamental determinant of narrative effects. Study 1 empirically validated the NIM's theoretical proposition that different types of content influence consumer response through distinct pathways. Physical outcome content showed expected effects on brand effectiveness beliefs (H1a supported), experience content significantly enhanced affective forecasting compared to other content types (H1d supported), and both aligned with the NIM's predictions about how these content types function. These findings validate the NIM's content categorization while providing empirical evidence in the specific context of patient story advertising.

However, the PSAM extends the NIM by empirically distinguishing between physical and psychological outcome content, demonstrating differential effects that the NIM does not fully account for. Study 1 revealed that physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains rather than only in its matched domain, while psychological outcome content triggered critical evaluation when paired with character presence. This distinction between outcome content types represents an important theoretical refinement that addresses healthcare brands' strategic use of both physical and psychological outcome content in patient stories (McLeod, 2022, 2023).

The PSAM also challenges the NIM's hierarchical conceptualization of narrative engagement. Study 1 revealed identification primacy in the persuasion process, where identification significantly affected ad effectiveness ($\beta = 0.087$, $p = .014$) while transportation did not ($\beta = 0.035$, $p = .404$). Study 2 demonstrated that transportation and identification function as parallel rather than sequential processes with different

downstream consequences. This dual mechanism perspective contradicts the NIM's assumption that transportation represents a deeper level of engagement than identification, instead suggesting these processes serve distinct functions in narrative persuasion.

Additionally, the PSAM extends the NIM by specifying how structural elements organize content-activated processing routes in complete patient stories. While the NIM acknowledges that stories can trigger both immersive and scrutinizing responses, it provides limited guidance on how structural elements might influence these responses. The PSAM addresses this limitation by demonstrating that plot structure functions as an integrative mechanism that helps organize and balance multiple content types and their associated processing routes. This structural dimension enhances the NIM's content-focused approach by explaining how patient stories influence consumers when multiple content types appear together.

Connection to Exemplification Theory. The PSAM engages with Zillmann's (1999, 2006) exemplification theory while revealing important boundary conditions in healthcare contexts. Exemplification theory explains how concrete examples, or exemplars, shape beliefs through cognitive and emotional processes that enhance persuasion. The PSAM maintains exemplification theory's emphasis on how individual cases influence broader perceptions while challenging its universal enhancement assumptions.

The PSAM supports exemplification theory's proposition that exemplars influence consumer perceptions through concrete representation. Character presence consistently enhanced narrative engagement processes in Study 2, including

transportation ($\beta = 0.159$, $p < 0.001$), identification ($\beta = 0.151$, $p < 0.001$), perceived similarity ($\beta = 0.167$, $p < 0.001$), and emotional responses ($\beta = 0.146$, $p < 0.001$). These findings align with exemplification theory's prediction that concrete examples enhance emotional engagement and perceived similarity, making abstract concepts more tangible and personally relevant.

However, the PSAM challenges exemplification theory by demonstrating content-conditional exemplar effects. Study 1 revealed that character presence significantly decreased brand meaning belief ($\beta = -0.214$, $p = .049$) and overall brand beliefs ($\beta = -0.204$, $p = .046$) for psychological outcome content compared to control. This pattern directly contradicts exemplification theory's prediction that exemplars enhance rather than diminish persuasion, instead supporting the Critical Evaluation Hypothesis developed through Study 1. This finding suggests that for abstract psychological claims in healthcare contexts, exemplars may trigger critical evaluation rather than the enhanced persuasion that exemplification theory would predict.

The PSAM also extends exemplification theory by distinguishing between actual and perceived exemplars. Study 2 examined character perception in character-absent conditions, finding that high narrativity significantly increased the likelihood of character perception compared to low narrativity (odds ratio = 1.85, $p = 0.009$). However, this perception did not translate into enhanced narrative engagement or persuasive outcomes, suggesting that actual exemplars have stronger effects than mentally constructed exemplars. This distinction refines exemplification theory by specifying that perceived exemplars function differently than actual exemplars, explaining why healthcare brands invest in authentic patient portrayals rather than relying on abstract descriptions.

Additionally, the PSAM enhances exemplification theory by specifying dual pathways through which exemplars achieve their effects. The significant mediation of character presence effects on ad effectiveness through both transportation (indirect effect $\beta = 0.116$, $p < 0.001$) and identification (indirect effect $\beta = 0.104$, $p < 0.001$) in Study 2 demonstrates that exemplars influence persuasion through distinct but complementary mechanisms. This dual pathway perspective extends exemplification theory by providing greater specificity about how exemplars influence consumer response, addressing Kim et al.'s (2012) call for more nuanced understanding of exemplification processes.

Connection to Narrativity Theory. The PSAM engages with Schreiner et al.'s (2018) narrativity theory while extending its application to healthcare contexts. Narrativity theory explains how the arrangement and connection of story events influences narrative processing and persuasion. The PSAM maintains narrativity theory's emphasis on plot structure while extending understanding of how narrativity functions in patient stories.

The PSAM supports narrativity theory's proposition that high narrativity enhances transportation and persuasion. Study 2 demonstrated that high narrativity significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$), marginally reduced counter-arguing ($\beta = -0.066$, $p = 0.068$), and significantly enhanced ad effectiveness compared to control ($\beta = 0.166$, $p < 0.001$). These findings align with Schreiner et al.'s (2018) prediction that well-structured stories with clear causal connections enhance processing fluency and narrative engagement.

However, the PSAM extends narrativity theory by demonstrating that plot structure functions as an integrative mechanism that helps organize multiple content

types and their associated processing routes. This organizational function goes beyond Schreiner et al.'s (2018) focus on processing fluency to address how plot structure determines which content-activated routes become dominant when multiple content types appear together. The finding that high narrativity enhanced transportation while reducing counter-arguing suggests that in healthcare contexts, plot structure may help balance emotional engagement with critical evaluation—addressing what Schenker et al. (2014) identify as a central tension in healthcare advertising.

The PSAM also extends narrativity theory by examining how plot structure interacts with character presence. Study 2 revealed that high narrativity significantly increased character perception in character-absent conditions (odds ratio = 1.85, $p = 0.009$), suggesting that well-structured plots facilitate mental models that prompt perception of an identifiable character when such a character is not present. This finding extends narrativity theory by demonstrating that plot structure not only enhances engagement but also shapes how consumers process character information in integrated patient stories.

Additionally, the PSAM refines narrativity theory by positioning plot structure as a complementary rather than transformative element in patient stories. While high narrativity showed advantages compared to low narrativity, the modest effect sizes observed in Study 2 suggest that narrativity functions as an optimization rather than transformation factor. This perspective aligns with broader meta-analytic evidence showing modest but significant effects of story features on persuasion outcomes (Braddock & Dillard, 2016; Shen et al., 2015) while providing greater specificity about the relative importance of plot structure in healthcare contexts.

Theoretical Extension. The PSAM extends beyond these established frameworks by proposing a content-first, structure-second approach to narrative persuasion. While traditional narrative theories often position structural elements as primary determinants of narrative effects, the PSAM demonstrates that content type fundamentally moderates how structural elements function. This perspective transforms theoretical understanding by challenging universal process assumptions and suggesting a more nuanced, context-specific approach to narrative persuasion.

The model makes four key theoretical contributions that extend beyond existing frameworks. First, it demonstrates that content type moderates how structural elements function, challenging universal enhancement assumptions common in narrative persuasion research. Second, it positions transportation and identification as distinct rather than sequential mechanisms with different consequences for resistance reduction and emotional engagement. Third, it shows that story elements function as complementary rather than purely synergistic factors, with different configurations achieving similar outcomes through different pathways. Fourth, it identifies healthcare attitudes as a critical contextual moderator, with narrative effects stronger for individuals with less positive healthcare attitudes.

These contributions collectively transform understanding of how patient stories influence vulnerable healthcare consumers in high-stakes decision contexts, addressing calls for systematic experimental investigation of how patient story features influence consumer healthcare decisions (Berry et al., 2020; Hlubocky et al., 2020). The PSAM's integrated perspective addresses limitations in both content-focused and structure-focused

narrative theories while providing a more comprehensive framework for understanding patient story advertising in healthcare contexts.

Core Theoretical Propositions

The Patient Story Advertising Model (PSAM) advances five core theoretical propositions derived from the empirical findings of this dissertation. These propositions articulate the fundamental principles through which patient stories influence consumer healthcare decisions, providing both explanatory power for the complex patterns observed in the experimental studies and predictive value for understanding how these elements might function in real-world healthcare advertising contexts. Each proposition addresses critical gaps in narrative persuasion theory while offering practical implications for healthcare communication.

Proposition 1: Different content types activate distinct processing routes, and content type fundamentally moderates how structural elements function.

The **Content-Conditional Processing Proposition** establishes content type as the primary determinant of how consumers process patient stories. Study 1 provided empirical evidence that different content types activate distinct processing routes when presented in isolation: physical outcome content activates complementary observational and analytical routes, psychological outcome content primarily activates analytical routes with critical evaluation, and experience content activates competing observational and simulation routes. This proposition challenges universal process assumptions common in narrative persuasion research, which often suggest that structural elements like character and plot uniformly enhance engagement regardless of content.

The evidence for this proposition comes from several key findings in Study 1. Physical outcome content demonstrated remarkable persuasive versatility, enhancing brand beliefs across domains rather than only in its matched domain. It was the only content type to consistently improve overall ad effectiveness compared to control ($\beta = 0.196$, $p = .006$ with character; $\beta = 0.153$, $p = .038$ without character), showing unexpected dominance across belief measures. Psychological outcome content with character presence significantly decreased brand meaning belief ($\beta = -0.214$, $p = .049$) and overall brand beliefs ($\beta = -0.204$, $p = .046$) compared to control, supporting the Critical Evaluation Hypothesis that character presence triggers heightened scrutiny for abstract psychological claims. Experience content revealed a fundamental trade-off where character presence enhanced brand beliefs ($\beta = 0.218$, $p = .034$) while simultaneously decreasing affective forecasting ($\beta = -0.511$, $p = .001$), supporting the Blank Slate Hypothesis that character absence facilitates self-projection.

This proposition advances narrative persuasion theory by moving beyond universal process assumptions toward a more nuanced, content-specific approach. It challenges van Laer et al.'s (2014) Extended Transportation-Imagery Model, which positions storyteller antecedents as universal enhancers without accounting for content-specific effects. It extends Shaffer et al.'s (2018a) Narrative Immersion Model by providing greater specificity about how different content types function, particularly distinguishing between physical and psychological outcome content. This content-conditional perspective explains why patient stories with similar structures, but different content emphases, might produce different persuasive effects—a critical insight for

healthcare brands that strategically combine multiple content types to influence vulnerable consumers (McLeod, 2022, 2023; Willett, 2024).

The Content-Conditional Processing Proposition has important implications for patient story advertising. When multiple content types appear together in complete stories, this proposition suggests that content emphasis and sequence will determine which processing routes become dominant. Physical outcome content may serve as a cognitive anchor that enhances credibility across domains, potentially mitigating the skepticism that psychological content triggered in isolation. Experience content may create tension between observational and simulation routes, requiring strategic decisions about character presentation based on whether brand beliefs or affective forecasting represents the primary communication objective. These content-conditional effects help explain why healthcare brands strategically sequence content types in actual patient stories, typically beginning with concrete physical outcomes before progressing to more abstract psychological transformations (McLeod, 2022, 2023).

Proposition 2: Transportation and identification function as distinct mechanisms with specialized persuasive functions—transportation primarily reduces resistance while identification primarily enhances emotional engagement.

The **Mechanism Specialization Proposition** establishes transportation and identification as parallel rather than sequential processes with different downstream consequences. Study 2 provided empirical evidence that these mechanisms influence consumer response through distinct pathways: transportation creating immersion that reduces resistance to persuasion, while identification facilitating perspective-taking that enhances emotional engagement. This proposition challenges hierarchical

conceptualizations of narrative engagement that position transportation as a deeper level of engagement than identification (Shaffer et al., 2018a), instead suggesting these processes serve complementary but distinct functions in narrative persuasion.

The evidence for this proposition comes from several key findings in Study 2. Transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), while identification failed to significantly reduce either form of resistance. This pattern directly contradicted hypotheses H12c-f, which predicted identification would have stronger effects on reducing resistance than transportation. Instead, a significant effect in the opposite direction was observed for counter-arguing ($\beta = 0.810$, $p = .008$). Conversely, identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$). These differentiated effects demonstrate that transportation and identification operate through distinct pathways with different persuasive consequences.

This proposition advances narrative persuasion theory by challenging traditional assumptions about how stories influence consumers. It extends Green and Brock's (2000, 2002) transportation theory, which emphasizes resistance reduction without fully accounting for identification effects, and Cohen's (2001) identification theory, which focuses on perspective-taking without addressing resistance processes (Cohen & Klimmt, 2021). By specifying distinct roles for these mechanisms, this proposition explains the apparent contradiction between Study 1's identification primacy finding and Study 2's demonstration that transportation more strongly reduced resistance processes. It suggests that in isolated content, identification's perspective-taking function may directly

influence persuasion, while in integrated stories, transportation and identification work through complementary pathways—transportation reducing resistance while identification enhances emotional connection.

The Mechanism Specialization Proposition has important implications for patient story design. Rather than assuming all narrative engagement enhances persuasion in the same way, healthcare communicators can make strategic decisions about whether to prioritize resistance reduction (through transportation-enhancing structures) or emotional engagement (through identification-enhancing characters) based on specific communication objectives. For reaching healthcare-skeptical consumers, transportation-enhancing high-narrativity plots might be particularly valuable for reducing resistance to persuasion. For enhancing emotional connection with healthcare experiences, identification-enhancing character development might be more effective. This specialized approach addresses what Schenker et al. (2014) identify as a central tension in healthcare advertising: how storytelling approaches might help or hinder informed decision making for vulnerable consumers.

Proposition 3: Content, character, and plot function as complementary rather than purely synergistic elements, with different configurations achieving similar outcomes through different pathways.

The **Complementary Elements Proposition** establishes that story elements contribute to narrative persuasion through parallel rather than interdependent processes. Study 2 provided empirical evidence that different configurations of plot structure and character presence could achieve similar persuasive outcomes, challenging the assumption that all story elements must be maximized to enhance effectiveness. This

proposition contradicts van Laer et al.'s (2014) assumption that storyteller antecedents work together in an additive fashion to enhance transportation, instead suggesting a more flexible approach where strength in one element may partially compensate for weakness in another.

The evidence for this proposition comes from several key findings in Study 2. While both character-present and character-absent conditions significantly improved ad effectiveness compared to the control condition (present: $\beta = 0.157$, $p < 0.001$; absent: $\beta = 0.126$, $p = 0.005$), the difference between these conditions was not statistically significant (difference = 0.050, $p = 0.568$). Similarly, both high and low narrativity improved ad effectiveness compared to control (high: $\beta = 0.166$, $p < 0.001$; low: $\beta = 0.109$, $p = 0.015$), though high narrativity showed somewhat stronger effects. The interaction between plot structure and character presence revealed complementary rather than purely synergistic effects. While the combination of high narrativity and character presence (Condition 1) showed advantages in transportation and ad effectiveness compared to some conditions, it did not consistently outperform all alternatives as would be expected if these elements functioned synergistically.

This proposition advances narrative persuasion theory by moving beyond universal enhancement assumptions toward a more nuanced understanding of how story elements function independently and together. It challenges the common assumption in narrative research that all story elements should be maximized to enhance effectiveness, instead suggesting strategic flexibility in how these elements are configured based on specific communication objectives. This complementary perspective explains why different configurations of story elements might achieve similar outcomes through

different pathways—a critical insight for healthcare brands that must make strategic decisions about resource allocation in patient story development.

The Complementary Elements Proposition has important implications for patient story design. Rather than treating all story elements as essential requirements, healthcare communicators can make strategic decisions about which elements to emphasize based on specific persuasion objectives and resource constraints. For maximizing transportation and reducing resistance, the combination of high narrativity and character presence showed advantages, suggesting this configuration may be optimal when resources allow comprehensive story development. However, when facing resource constraints, high narrativity without character or low narrativity with character may achieve significant improvements compared to non-storytelling approaches. This strategic flexibility addresses practical challenges in healthcare communication, where limited resources often require trade-offs in story element development.

Proposition 4: Narrative effects are moderated by healthcare attitudes, with storytelling approaches particularly effective for individuals with less positive healthcare attitudes.

The **Healthcare Context Proposition** establishes healthcare attitudes as a critical contextual moderator of narrative persuasion in patient stories. Study 2 provided empirical evidence that narrative engagement effects vary systematically based on pre-existing healthcare attitudes, with stronger effects observed for individuals with less positive attitudes. This proposition challenges the assumption that storytelling approaches work most effectively for consumers already positively disposed toward the message

domain, instead suggesting stories may serve as bridges to engage healthcare-skeptical consumers.

The evidence for this proposition comes from the significant moderation effects observed in Study 2. Healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, with stronger effects observed for individuals with less positive healthcare attitudes. The negative interaction effect indicates that narrative engagement processes have stronger effects on ad effectiveness for individuals with less positive healthcare attitudes—a pattern that directly challenges the assumption that narrative persuasion works most effectively for consumers already positively disposed toward the message domain.

This proposition advances narrative persuasion theory by specifying how context-specific factors influence narrative effectiveness. It extends the visceral congruency framework (Freling et al., 2020) by demonstrating that in healthcare contexts, storytelling approaches may be particularly valuable for reaching skeptical consumers rather than reinforcing existing positive attitudes. While Freling et al. (2020) suggest healthcare contexts amplify certain moderator effects by increasing both personal relevance and threat severity, they do not specify the direction of these effects. This proposition provides this specificity, showing that narrative engagement may be especially persuasive for healthcare-skeptical consumers—a critical insight for understanding how patient stories influence vulnerable healthcare consumers.

The Healthcare Context Proposition has important implications for targeted communication strategies. Healthcare brands might strategically deploy storytelling approaches to reach consumers with less positive healthcare attitudes, potentially through

segmentation based on healthcare attitudes rather than demographic or structural variables like access or insurance status. This strategic targeting addresses what Schwartz and Woloshin (2016) identify as a central ethical concern in healthcare advertising: how storytelling approaches might help or hinder informed decision making for vulnerable consumers. If stories serve as bridges to engage healthcare-skeptical consumers, they may provide valuable pathways for reaching consumers who might otherwise resist traditional healthcare marketing approaches.

Proposition 5: Effective patient stories require strategic alignment of content, character, and plot elements based on specific communication objectives rather than universal “best practices.”

The **Integrated Optimization Proposition** establishes that patient story effectiveness depends on strategic alignment of story elements rather than universal enhancement across all dimensions. Both studies provided empirical evidence that different story configurations achieve different persuasive outcomes, suggesting that optimization rather than maximization should guide patient story design. This proposition challenges the “more is better” assumption common in storytelling approaches, instead suggesting that strategic decisions about content emphasis, character presence, and plot structure should be guided by specific communication objectives.

The evidence for this proposition comes from the consistent pattern of modest effect sizes observed across both studies (typically $R^2 < 0.30$), indicating that story elements function as optimization rather than transformation factors. Study 1 revealed content-specific patterns that suggested different optimization strategies depending on the primary communication objective: physical outcome content for enhancing overall ad

effectiveness, experience content without character for enhancing affective forecasting, and experience content with character for enhancing brand beliefs. Study 2 demonstrated that while high narrativity and character presence showed some advantages compared to other configurations, the modest effect sizes suggested incremental optimization rather than transformative impact.

This proposition advances narrative persuasion theory by moving beyond universal “best practices” toward a more nuanced, objective-specific approach to story optimization. It integrates content-focused theories like the Narrative Immersion Model (Shaffer et al., 2018a) with structure-focused theories like the Extended Transportation-Imagery Model (van Laer et al., 2014) to provide a more comprehensive framework for understanding when and why different story configurations might be most effective. This integrated perspective explains why the same story feature might enhance effectiveness for one communication objective while diminishing it for another—a critical insight for healthcare brands that must balance multiple persuasion objectives in patient story advertising.

The Integrated Optimization Proposition has important practical implications for evidence-based patient story design. Rather than applying universal “best practices” across all stories, healthcare communicators can make strategic decisions about content emphasis and structural elements based on specific communication objectives. For enhancing overall ad effectiveness, physical outcome content with high narrativity and character presence appears optimal. For reducing resistance among healthcare-skeptical consumers, transportation-enhancing high-narrativity plots may be particularly valuable. For enhancing emotional connection, identification-enhancing character development

with experience content might be more effective. This objective-specific approach addresses concerning patterns in healthcare narrative advertising while providing both theoretical understanding and practical guidance for developing more balanced approaches.

These five core theoretical propositions collectively transform understanding of how patient stories influence healthcare consumers. The Content-Conditional Processing Proposition establishes content type as the primary determinant of which processing routes are activated. The Mechanism Specialization Proposition identifies distinct roles for transportation and identification in narrative persuasion. The Complementary Elements Proposition challenges synergistic assumptions about how story elements function together. The Healthcare Context Proposition identifies attitudes as a critical moderator of narrative effects. The Integrated Optimization Proposition establishes objective-specific alignment as the key to patient story effectiveness. Together, these propositions provide both explanatory power for the complex patterns observed in the experimental studies and predictive value for understanding how these elements might function in real-world healthcare advertising contexts.

Practical Implications

The Patient Story Advertising Model (PSAM) translates into actionable guidance for healthcare communicators seeking to develop more effective and responsible patient stories. This section converts theoretical insights into strategic frameworks and implementation approaches that address the practical challenges healthcare brands face when crafting patient stories to influence consumer healthcare decisions. Rather than offering universal “best practices” that may not acknowledge content-specific effects, this

evidence-based approach emphasizes strategic optimization based on specific communication objectives. The findings from both studies consistently demonstrated modest effect sizes (typically $R^2 < 0.30$), suggesting that story elements function as optimization rather than transformation factors—requiring thoughtful application guided by specific persuasion objectives rather than maximization across all dimensions. This perspective is particularly important given healthcare brands' enhanced obligations to balance persuasive effectiveness with ethical responsibility toward vulnerable consumers (Schwartz & Woloshin, 2016).

Strategic Decision Framework

The empirical findings from both studies support a Strategic Decision Framework that guides selection of optimal story elements based on specific communication objectives. Rather than applying uniform approaches across all patient stories, healthcare communicators can make evidence-based decisions about content emphasis, character presence, and plot structure based on primary persuasion goals. This framework acknowledges that different story configurations serve distinct persuasive functions, with effectiveness determined by strategic alignment rather than universal enhancement across all dimensions. This approach aligns with research on healthcare services advertising showing that academic health centers invest significantly in patient stories to achieve specific organizational objectives, including patient acquisition, financial donations, and brand awareness (Willett, 2024).

The Strategic Decision Framework organizes patient story decisions around five primary communication objectives identified through the empirical studies: enhancing brand beliefs, facilitating affective forecasting, reducing resistance among skeptical

consumers, creating emotional engagement, and maximizing overall ad effectiveness. For each objective, the framework specifies optimal configurations of content emphasis, character presence, and plot structure based on the route-specific processing patterns identified in both studies. This objective-specific approach acknowledges that patient stories must simultaneously achieve multiple persuasion goals while supporting informed decision making—addressing what Schenker et al. (2014) identify as a central tension in healthcare advertising.

For Enhancing Brand Beliefs. Brand beliefs represent consumers' fundamental assessments of healthcare brand capabilities, particularly important in healthcare contexts where consumers often lack direct experience to evaluate technical quality (Shaffer et al., 2018a). When enhancing brand beliefs represents the primary communication objective, the Strategic Decision Framework recommends:

- **Optimal Configuration:** Physical outcome content with high narrativity and character presence.
- **Content Emphasis:** Lead with concrete physical outcomes (e.g., tumor reduction, symptom improvement) that provide accessibility evidence of healthcare quality.
- **Character Approach:** Develop authentic patient characters with relatable attributes and experiences.
- **Plot Structure:** Implement high-narrativity structure with clear causal connections between healthcare interventions and physical outcomes.
- **Integration Approach:** Use physical outcome content as cognitive anchor that enhances credibility for subsequent psychological content.

This configuration leverages the finding from Study 1 that physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains, not just in matched domains. Physical outcome content was the only content type to consistently improve overall ad effectiveness compared to control ($\beta = 0.196$, $p = .006$ with character; $\beta = 0.153$, $p = .038$ without character), showing unexpected dominance across belief measures. Study 2 demonstrated that high narrativity plots enhanced transportation ($\beta = 0.093$, $p = 0.014$), which, combined with character presence, created conditions optimal for belief formation. This approach aligns with content analyses showing that effective patient stories typically begin with concrete physical outcomes before addressing more abstract psychological transformation (McLeod, 2022, 2023).

For Facilitating Affective Forecasting. Affective forecasting represents consumers' ability to predict their own emotional reactions to future treatment experiences, a critical dimension for informed healthcare decision making (Wilson & Gilbert, 2005). When facilitating affective forecasting represents the primary communication objective, the Strategic Decision Framework recommends:

- **Optimal Configuration:** Experience content with high narrativity and selective character absence.
- **Content Emphasis:** Focus on what treatment feels like, with detailed descriptions of sensory and emotional experiences.
- **Character Approach:** Include limited character presence for establishing context but incorporate character-absent sections that facilitate self-projection.
- **Plot Structure:** Implement high-narrativity structure with clear temporal sequence of emotional states throughout treatment.

- **Integration Approach:** Balance character-focused sections (enhancing observational learning) with character-absent sections (enhancing simulation).

This configuration incorporates the finding from Study 1 that character absence significantly enhanced affective forecasting for experience content ($\beta = -0.511$, $p = .001$), supporting the Blank Slate Hypothesis that the absence of an identifiable character creates projective space for mental simulation. Study 2 demonstrated that high narrativity enhanced transportation ($\beta = 0.093$, $p = 0.014$) while reducing counter-arguing ($\beta = -0.066$, $p = 0.068$), creating conditions that support affective forecasting through emotional flow. This approach acknowledges Wilson and Gilbert's (2003) finding that people often misjudge future emotional states, particularly in healthcare contexts where impact bias—the tendency to overestimate both the intensity and duration of emotional responses to medical procedures—can significantly influence decision making.

For Reducing Resistance Among Skeptical consumers. Given the finding that narrative effects were stronger for individuals with less positive healthcare attitudes (Study 2: $\beta = -0.145$, $p < .001$), the Strategic Decision Framework includes specific approaches for reaching healthcare-skeptical consumers. When reducing resistance represents the primary communication objective, the framework recommends:

- **Optimal Configuration:** Physical outcome content with high narrativity and limited character presence.
- **Content Emphasis:** Focus on concrete, verifiable outcomes with specific evidence that supports healthcare quality claims.
- **Character Approach:** Include identifiable characters but avoid overreliance on subjective testimonials that might trigger skepticism.

- **Plot Structure:** Implement high-narrativity structure with explicit causal links between healthcare interventions and outcomes.
- **Integration Approach:** Lead with evidence-based content before addressing more subjective dimensions of care.

This configuration builds on Study 2's finding that transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), indicating that transportation-enhancing structures may be particularly valuable for addressing skepticism. High narrativity enhanced transportation ($\beta = 0.093$, $p = 0.014$) while avoiding the potential skepticism that character testimonials triggered for abstract claims in Study 1. This approach aligns with Berry et al.'s (2020) observation that healthcare brands must balance emotional engagement with factual accuracy when communicating with vulnerable consumers facing consequential healthcare decisions.

For Creating Emotional Engagement. Emotional engagement represents a critical dimension of patient story effectiveness, particularly for creating connection with healthcare brands that often struggle with perceived institutional coldness (Park et al., 2023). When enhancing emotional engagement represents the primary communication objective, the Strategic Decision Framework recommends:

- **Optimal Configuration:** Psychological outcome content and experience content with high narrativity and character presence.
- **Content Emphasis:** Focus on meaningful personal transformation and emotional aspects of treatment experiences.

- **Character Approach:** Develop well-rounded characters with relatable attributes and emotional journeys.
- **Plot Structure:** Implement high-narrativity structure with emotional arcs that show progression through treatment.
- **Integration Approach:** Balance transformative psychological outcomes with relatable treatment experiences through character perspective.

This configuration leverages Study 2's finding that identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$), indicating that character-focused approaches may be particularly effective for emotional engagement. Character presence consistently enhanced identification ($\beta = 0.151$, $p < .001$), perceived similarity ($\beta = 0.167$, $p < .001$), and emotional responses ($\beta = 0.146$, $p < .001$). High narrativity supports this emotional engagement while potentially mitigating the skepticism that psychological content triggered in isolation during Study 1. This approach addresses findings from content analyses showing that academic health centers routinely use patient stories to establish emotional connection with potential patients through transformative journeys (McLeod, 2022, 2023; Willett, 2024).

For Maximizing Overall Ad Effectiveness. When maximizing overall ad effectiveness represents the primary communication objective, the Strategic Decision Framework recommends an integrated approach that strategically balances multiple story elements:

- **Optimal Configuration:** Integrated content with high narrativity and character presence.

- **Content Emphasis:** Begin with physical outcomes before addressing psychological transformation and treatment experiences.
- **Character Approach:** Develop authentic patient characters that facilitate identification while avoiding potential skepticism triggers.
- **Plot Structure:** Implement high-narrativity structure with clear causal connections and emotional progression.
- **Integration Approach:** Strategically sequence content types to build credibility while creating emotional engagement.

This integrated configuration builds on Study 2's finding that while the combination of high narrativity and character presence (Condition 1) showed some advantages compared to other conditions, different configurations achieved similar outcomes through different pathways. Both high narrativity without character ($\beta = 0.232$, $p < .001$) and low narrativity with character ($\beta = 0.193$, $p = .002$) significantly enhanced ad effectiveness compared to control, suggesting strategic flexibility in story development. This approach acknowledges Berry et al.'s (2020) observation that healthcare brands strategically combine multiple content types with identifiable characters and coherent plot structures to influence consumer healthcare decisions.

The Strategic Decision Framework provides practical guidance for healthcare communicators facing resource constraints and competing communication objectives. Rather than suggesting that all patient stories must maximize all story elements, this framework acknowledges the modest effect sizes observed across studies (typically $R^2 < 0.30$) and offers strategic approaches for optimizing specific persuasion goals. This objective-specific perspective addresses the complex reality of healthcare

communication, where persuasive effectiveness must be balanced with ethical responsibility toward vulnerable consumers making consequential healthcare decisions.

Content Selection and Emphasis Guidelines

The examination of content-specific effects in Study 1 provides valuable guidance for strategic content selection and emphasis in patient stories. The findings revealed that different content types activate distinct processing routes when presented in isolation: physical outcome content activated complementary observational and analytical routes, psychological outcome content primarily activated analytical routes with critical evaluation, and experience content activated competing observational and simulation routes. These content-specific patterns translate into practical guidelines for content selection and emphasis based on specific communication objectives. This approach acknowledges McLeod's (2022, 2023) finding that healthcare brands carefully select and position content in patient stories to achieve strategic objectives, with emphasis, sequencing, and integration of content types fundamentally shaping consumer response.

Strategic Content Selection. Content selection should be guided by specific communication objectives rather than uniform approaches across all patient stories. The empirical findings support these content selection guidelines:

- **For enhancing brand effectiveness beliefs.** Prioritize physical outcome content that provides concrete evidence of treatment success. Study 1 demonstrated that physical outcome content significantly enhanced brand effectiveness belief compared to control (H1a supported), functioning as a cognitive anchor that facilitates belief formation. This content should include specific, measurable improvements in physical symptoms or functioning, with clear cause-effect

relationships between treatments and outcomes. This aligns with empirical evidence that physical outcome content was the only content type to consistently improve overall ad effectiveness compared to control ($\beta = 0.196$, $p = .006$ with character; $\beta = 0.153$, $p = .038$ without character).

- **For enhancing brand meaning beliefs.** Include psychological outcome content but position it strategically to avoid potential skepticism. Study 1 revealed that psychological outcome content with character presence significantly decreased brand meaning belief ($\beta = -0.214$, $p = .049$) and overall brand beliefs ($\beta = -0.204$, $p = .046$) compared to control, supporting the Critical Evaluation Hypothesis. This content should include meaningful personal transformation and quality of life improvements, but with strategic presentation that acknowledges potential consumer skepticism toward abstract psychological claims. This aligns with content analyses showing that effective patient stories typically combine psychological outcomes with concrete physical outcomes that provide objective verification (McLeod, 2022, 2023).
- **For enhancing affective forecasting.** Prioritize experience content that illustrates treatment processes and emotional trajectories. Study 1 demonstrated that experience content showed stronger effects on affective forecasting than other content types (coefficient difference vs. physical = 0.637 , $p < .001$; vs. psychological = 1.160 , $p < .001$). This content should include detailed sensory and emotional information about typical experiences, focusing on what treatment feels like rather than just outcomes. This approach addresses Wilson and Gilbert's

(2003, 2005) finding that people often struggle to accurately predict their future emotional states, particularly in unfamiliar healthcare contexts.

Content Integration Approaches. When multiple content types appear together in complete patient stories, strategic integration becomes essential for optimizing persuasive impact while supporting informed decision making. The findings from both studies support these content integration approaches:

- **Strategic sequencing.** Begin with concrete physical outcomes before addressing more abstract psychological outcomes or subjective experiences. Study 1 revealed that physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains, suggesting it can establish credibility foundation for subsequent content types. Study 2 demonstrated that high-narrativity plots enhanced transportation ($\beta = 0.093$, $p = 0.014$) while reducing counter-arguing ($\beta = -0.066$, $p = 0.068$), suggesting that coherent sequencing facilitates acceptance of integrated content. This sequencing aligns with McLeod's (2022, 2023) finding that effective patient stories typically progress from concrete outcomes to more abstract transformations.
- **Explicit content connections.** Create clear connections between content types, particularly linking physical improvements to psychological benefits and connecting service experiences to specific outcomes. Study 1 revealed that different content types activate distinct processing routes, suggesting that explicit connections between content types may help balance these routes in integrated stories. This approach addresses what Willett (2024) identifies as strategic integration of content types in healthcare brand patient stories, where the

connections between physical, psychological, and experiential dimensions influence persuasive impact.

- **Balanced evidence distribution.** Integrate appropriate evidentiary support across content types rather than relying solely on testimonial authority. Study 1 demonstrated that psychological outcome content triggered skepticism when presented through character testimonials, suggesting the need for balanced evidence distribution. This approach addresses Berry et al.'s (2020) observation that academic health centers often emphasize extraordinary outcomes without acknowledging typical experiences, creating potential for misinformed decision making among vulnerable consumers.
- **Content-specific character approaches:** Implement character presence strategically based on content type and communication objective. Study 1 revealed content-conditional character effects: neutral for physical outcome content, negative for psychological outcome content, and mixed for experience content (enhancing brand beliefs but diminishing forecasting). These patterns suggest that character presence should vary strategically across content types rather than maintaining uniform presence throughout stories. This approach builds on Martel et al.'s (2022) finding that healthcare brands carefully craft character presentations in patient stories to maximize consumer emotional engagement.
- **Processing route management.** Acknowledge the distinct processing routes activated by different content types and strategically manage potential conflicts. Study 1 demonstrated that experience content activated competing observational and simulation routes, creating tension between brand belief formation and

affective forecasting. Strategic management of these competing routes may involve separating character-focused sections (enhancing observational learning) from character-absent sections (enhancing simulation) within the same story. This approach addresses Shaffer et al.'s (2018a) observation that healthcare stories can simultaneously trigger both immersive and scrutinizing responses.

These content selection and integration guidelines acknowledge the complexity of patient story development while providing evidence-based approaches for strategic content decisions. Rather than suggesting uniform content approaches across all patient stories, these guidelines emphasize the importance of content selection and integration based on specific communication objectives and consumer characteristics. This objective-specific approach addresses Berry et al.'s (2020) observation that academic health centers routinely use carefully crafted stories to shape decisions of highly vulnerable consumers facing life-altering treatment choices, making strategic content decisions particularly consequential for both persuasive impact and ethical communication.

Plot Structure Implementation Strategies

Study 2 findings provide specific guidance for implementing plot structure in patient stories. High narrativity significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$) and ad effectiveness compared to control ($\beta = 0.166$, $p < 0.001$), with stronger effects than low narrativity observed for several outcomes. These findings translate into actionable implementation strategies for crafting more effective plot structures in patient stories, addressing what McLeod (2022, 2023) identifies as the strategic use of familiar plot structures to achieve organizational objectives. The following implementation

strategies focus on how healthcare communicators can implement plot structure elements to enhance persuasive impact while supporting informed decision making.

High Narrativity Implementation Elements. Narrativity theory (Schreiner et al., 2018) identifies several structural elements that distinguish high from low narrativity stories, including temporal sequence, causal connections, and plot coherence. Study 2 demonstrated that high-narrativity stories significantly enhanced transportation ($\beta = 0.093$, $p = 0.014$) and reduced counter-arguing ($\beta = -0.066$, $p = 0.068$), suggesting these structural elements facilitate both emotional engagement and message acceptance. The following high-narrativity elements represent evidence-based approaches for enhancing plot structure effectiveness:

- **Clear temporal sequence.** Structure stories with distinct beginning, middle, and end phases that follow a logical chronological progression. Study 2 demonstrated that high narrativity enhanced transportation ($\beta = 0.093$, $p = 0.014$), suggesting that temporal clarity facilitates immersion in the story world. This approach aligns with research showing that coherent temporal structures enhance processing fluency and reduce cognitive load, allowing more resources for immersive engagement (Schreiner et al., 2018). Implementation involves developing clear phase transitions and temporal markers that help consumers understand the progression of healthcare experiences, building on the finding that transportation significantly reduced counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$).
- **Explicit causal links.** Establish clear cause-effect relationships between healthcare brand interventions and outcomes. Study 2 revealed that high

narrativity marginally reduced counter-arguing ($\beta = -0.066$, $p = 0.068$), suggesting that causal clarity may help reduce skepticism toward message claims.

Implementation involves creating explicit connections between specific healthcare brand actions and resulting patient benefits, addressing what McLeod (2022, 2023) identifies as a key persuasion element in patient stories that establishes causal links between healthcare brand quality and positive patient experiences and outcomes.

- **Coherent plot resolution.** Develop coherent story arcs that progress from complication to resolution, with clear character transformation through the healthcare brand's intervention. Study 2 demonstrated that high narrativity significantly enhanced ad effectiveness compared to control ($\beta = 0.166$, $p < 0.001$), suggesting that coherent resolution structures positively influence persuasive outcomes. Implementation involves developing clear dramatic structure that establishes healthcare challenges before demonstrating their resolution through the healthcare brand's intervention, building on content analyses showing that patient stories predominantly employ triumph over adversity plot structures (McLeod, 2022, 2023).
- **Narrative integration.** Connect different story elements through cohesive plot development rather than presenting disconnected testimonials or fragmented experiences. Study 2 revealed that high narrativity enhanced transportation ($\beta = 0.093$, $p = 0.014$), which in turn reduced counter-arguing ($\beta = -0.568$, $p < .001$), suggesting that integrated storylines facilitate immersion while reducing resistance. Implementation involves developing unified narrative perspectives that

connect physical outcomes, psychological transformation, and treatment experiences within coherent storylines, addressing Berry et al.'s (2020) observation that effective patient stories blend multiple content elements in ways that simultaneously demonstrate quality and create emotional resonance.

Implementation Frameworks. The high-narrativity elements identified above can be implemented through several frameworks that healthcare communicators can adapt based on specific communications objectives and constraints. The following implementation frameworks represent evidence-based approaches for developing high-narrativity plot structures in patient stories:

- **Journey framework.** Structure stories around the patient journey from symptom recognition through treatment to recovery, establishing clear progression that enhances transportation. This framework directly addresses the temporal sequence element of high narrativity, organizing healthcare experiences in a chronological progression that facilitates understanding. Implementation involves dividing the patient experience into distinct phases with clear transitions and emotional progression throughout the healthcare journey, building on research showing chronological organization enhances processing fluency while facilitating emotional flow (Nabi & Green, 2015).
- **Problem-intervention-resolution.** Organize stories to clearly establish the health problem, show healthcare brand intervention, and demonstrate resolution, providing the causal clarity that distinguishes high from low narrativity. This framework directly addresses the causal connection element of high narrativity, establishing clear links between healthcare brand actions and positive outcomes.

Implementation involves developing a three-part structure that identifies specific health challenges, outlines how the healthcare brand addressed these challenges, and demonstrates concrete resolution through the brand's intervention, building on content analyses showing that effective patient stories establish causal connections between healthcare brands and positive outcomes (McLeod, 2022, 2023).

- **Milestone structure.** Develop plots around significant treatment milestones and decision points, creating the temporal structure that enhances transportation while maintaining authenticity. This framework combines temporal sequence with causal connections, organizing healthcare experiences around pivotal moments that shaped the patient's journey. Implementation involves identifying 3-5 key decision points or milestones that represent significant progression in the healthcare journey, building on research showing that milestone-oriented stories enhance both emotional engagement and message credibility by acknowledging process complexity (Schreiner et al., 2018).
- **Contrast structure.** Implement before-after comparisons within cohesive stories that demonstrate healthcare outcomes while maintaining clear causal connections. This framework emphasizes transformation through the healthcare brand's intervention, directly addressing the plot resolution element of high narrativity. Implementation involves establishing clear baseline states before showing transformation through healthcare interventions, building on content analyses showing that patient stories routinely use contrast structures to emphasize transformation through healthcare brand intervention (McLeod, 2022, 2023).

These implementation frameworks offer practical approaches for developing high-narrativity plot structures in patient stories, addressing multiple dimensions identified in narrativity theory (Schreiner et al., 2018). While even low narrativity significantly improved ad effectiveness compared to control ($\beta = 0.109$, $p = 0.015$) in Study 2, the stronger effects observed for high narrativity suggest these structural elements provide incremental advantages for healthcare communicators. The significant relationship between transportation and reduced counter-arguing ($\beta = -0.568$, $p < .001$) further suggests these structural elements may be particularly valuable for addressing resistance to persuasion in healthcare contexts, where consumers often approach marketing claims with heightened scrutiny (Berry et al., 2020).

Character Development and Integration

Character presence findings from both studies provide practical guidance for implementing patient characters in healthcare stories. Study 1 revealed content-conditional character effects (neutral for physical outcome content, negative for psychological outcome content, and mixed for experience content), while Study 2 demonstrated that character presence consistently enhanced narrative engagement processes including transportation ($\beta = 0.159$, $p < 0.001$), identification ($\beta = 0.151$, $p < 0.001$), perceived similarity ($\beta = 0.167$, $p < 0.001$), and emotional responses ($\beta = 0.146$, $p < 0.001$). These complementary findings translate into specific implementation strategies for character development and integration in patient stories, addressing what Martel et al. (2022) identify as the strategic use of patient exemplars to influence vulnerable consumers.

Character Development Elements. The empirical findings support several character development elements that enhance narrative engagement while avoiding potential skepticism triggers identified in Study 1. These evidence-based character development approaches acknowledge the dual-mechanism pathways established in Study 2, where identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) while transportation more strongly reduced resistance processes ($\beta = -0.568$, $p < .001$ for counter-arguing). This differentiated pattern suggests character development should focus on distinct elements depending on whether emotional engagement or resistance reduction represents the primary communication objective:

- **Authentic portrayal.** Present realistic, relatable patient characters rather than idealized representations. While character presence consistently enhanced engagement in Study 2, the modest effect sizes suggest authenticity may be more important than perfection in character development. This approach acknowledges Berry et al.'s (2020) observation that patients often overestimate treatment benefits, making them vulnerable to idealized character portrayals that emphasize extraordinary outcomes. Implementation involves developing characters with balanced attributes and experiences that acknowledge treatment challenges alongside successes, building on content analyses showing that characters who acknowledge treatment difficulties while demonstrating resilience enhance both engagement and perceived credibility (McLeod, 2023).
- **Experience illustration.** Use characters to illustrate treatment experiences and emotional journeys, leveraging the significant effect of character presence on emotional responses ($\beta = 0.146$, $p < .001$) observed in Study 2. This approach

acknowledges Study 1's finding that character presence enhanced brand beliefs for experience content ($\beta = 0.218$, $p = .034$) while avoiding the forecasting constraints it created. Implementation involves developing character perspectives that vividly illustrate what treatment feels like rather than just documenting outcomes, building on research showing that experience content primarily enhances subjective understanding and affective forecasting rather than belief formation (Shaffer et al., 2018a).

- **Perspective clarity.** Establish clear character viewpoints that facilitate identification, as character presence significantly enhanced identification ($\beta = 0.151$, $p < .001$) in Study 2, which in turn strongly affected emotional responses ($\beta = 0.530$, $p < .001$). This approach acknowledges Cohen's (2001) emphasis on identification as a distinct perspective-taking process that enables consumers to experience stories through character viewpoints. Implementation involves developing consistent narrative voice and perspective that helps consumers understand healthcare experiences through the character's eyes, addressing what McLeod (2022, 2023) identifies as a key persuasion element in patient stories that establishes relatable perspectives on healthcare experiences.
- **Selective personal details.** Focus character development on relevant aspects that enhance identification and emotional connection rather than comprehensive biographies. Study 2 demonstrated that identification significantly affected ad effectiveness (indirect effect $\beta = 0.104$, $p < 0.001$), suggesting character details should strategically enhance perspective-taking rather than simply providing background information. Implementation involves selecting character attributes

and experiences that facilitate perceived similarity with target audiences, building on the finding that character presence significantly enhanced perceived similarity ($\beta = 0.167$, $p < 0.001$) in Study 2.

Strategic Character Integration. The content-conditional character effects observed in Study 1, combined with the complementary effects of character presence and high narrativity in Study 2, suggest several strategic approaches for integrating characters within patient stories. These integration approaches acknowledge the finding that character presence and absence function differently across content types and plot structures, requiring strategic decisions rather than uniform approaches across all patient stories:

- **Content-conditional character emphasis.** Vary character emphasis across content types based on Study 1 findings: neutral emphasis for physical outcome content, reduced emphasis for psychological outcome content, and strategic variation for experience content based on whether brand beliefs or affective forecasting represents the primary objective. This approach addresses the Critical Evaluation Hypothesis, which suggests character presence may trigger heightened scrutiny for abstract psychological claims, and the Blank Slate Hypothesis, which suggests character absence may enhance affective forecasting by facilitating mental simulation. Implementation involves strategically varying character prominence and presentation style across different content sections within the same patient story.
- **Multiple character perspectives.** When targeting diverse consumers, incorporate multiple patient characters rather than single exemplars to enhance perceived

similarity across segments. Study 2 demonstrated that character presence significantly enhanced perceived similarity ($\beta = 0.167$, $p < 0.001$), suggesting multiple characters might extend this effect across diverse consumer segments. This approach addresses Martel et al.'s (2022) finding that patient stories predominantly feature white, middle-class patients, potentially limiting identification for diverse consumers. Implementation involves developing complementary character perspectives that represent different demographic attributes, treatment approaches, or outcome experiences within a unified narrative framework.

- **Narrative voice selection.** Make strategic decisions about first-person versus third-person narration based on specific communication objectives. While the experimental stimuli used third-person perspective, research suggests first-person may enhance identification while third person may facilitate transportation, allowing for tailored approaches (Shaffer et al., 2018a). This strategic approach acknowledges Study 2's finding that transportation and identification contribute to persuasion through different pathways, suggesting narrative voice selection should align with priority persuasion mechanisms. Implementation involves selecting narrative voice based on whether resistance reduction (through transportation) or emotional engagement (through identification) represents the primary communication objective.
- **Character journey focus.** Structure character development around healthcare journeys rather than personal attributes, emphasizing experiences that facilitate both identification and transportation. Study 2 demonstrated that both

mechanisms significantly mediated character presence effects on ad effectiveness (transportation: indirect effect $\beta = 0.116$, $p < 0.001$; identification: indirect effect $\beta = 0.104$, $p < 0.001$), suggesting character journeys should support both processes. This approach addresses the complementary rather than purely synergistic relationship between character presence and plot structure observed in Study 2. Implementation involves developing character arcs that align with plot structure to create unified narrative progression through the healthcare experience. These character development and integration approaches directly address the engagement processes enhanced by character presence in Study 2 while acknowledging the content-conditional effects observed in Study 1. While character presence enhanced narrative engagement across dimensions in Study 2, the differential effects of transportation and identification on outcomes suggest that character development should consider specific communication objectives rather than assuming universal enhancement effects. This strategic approach addresses Berry et al.'s (2020) observation that healthcare brands carefully craft character presentations to shape decisions of vulnerable consumers facing life-altering treatment choices, making character development decisions particularly consequential for both persuasive impact and ethical communication.

Audience Considerations

Study 2 findings about healthcare moderators provide important guidance for adapting storytelling approaches to different healthcare contexts and audience segments. Healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, with stronger effects observed for individuals with less positive healthcare attitudes. These findings translate

into specific recommendations for adapting storytelling approaches to different healthcare contexts and audience segments, addressing what Park et al. (2023) identify as the need for targeted communication strategies in healthcare advertising.

Audience Segmentation Approaches. The selective moderation pattern observed in Study 2—where healthcare attitudes significantly moderated narrative effects while most other variables did not—suggests attitude-based segmentation may be more effective than demographic or structural approaches. This pattern aligns with Dutta-Bergman's (2004) finding that healthcare attitudes significantly influence how consumers process healthcare messages but extends this work by specifying that these attitudes particularly moderate narrative engagement effects. The following segmentation approaches translate this finding into practical implementation strategies:

- **Attitude-based segmentation.** Segment audiences based on healthcare attitudes rather than demographic or structural variables alone. Study 2 demonstrated that healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, with stronger effects for individuals with less positive attitudes. This segmentation approach acknowledges the finding that storytelling approaches had stronger effects for consumers with less positive healthcare attitudes, suggesting strategic emphasis of storytelling approaches for these segments. Implementation involves identifying attitudinal indicators through consumer research and developing targeted communication approaches based on attitude profiles rather than demographic categories alone.

- **Experience-based segmentation.** Consider audience familiarity with healthcare contexts when developing patient stories. While Study 2 did not find significant moderation effects for provider status or health status, research suggests experience may influence how consumers process healthcare stories (Shaffer et al., 2018a). This segmentation approach acknowledges potential differences between first-time patients and those with extensive healthcare experience, suggesting tailored storytelling approaches based on familiarity levels.

Implementation involves identifying experience indicators and developing communication approaches that address specific informational and emotional needs based on healthcare familiarity.

- **Multi-dimensional segmentation.** Integrate healthcare attitudes with other relevant factors to create comprehensive segmentation frameworks. Study 2 demonstrated that provider status marginally moderated transportation effects on ad effectiveness ($\beta = -0.038$, $p < .001$), suggesting this variable may have limited influence alongside healthcare attitudes. This approach acknowledges that while healthcare attitudes emerged as the primary moderator, other factors may still contribute to narrative effectiveness in combination with attitudinal factors.

Implementation involves developing multi-dimensional segments that primarily emphasize healthcare attitudes while incorporating secondary factors like provider status or health status.

Audience-Specific Adaptation Strategies. Based on the moderation findings from Study 2, the following adaptation strategies target specific audience segments with tailored storytelling approaches. These strategies acknowledge the finding that narrative

effects were stronger for individuals with less positive healthcare attitudes, suggesting storytelling approaches may be particularly valuable for reaching these consumers:

- **For healthcare-skeptical consumers.** Implement more immersive, transportation-enhancing stories with high narrativity and evidence-based content. Study 2 demonstrated that narrative effects were stronger for individuals with less positive healthcare attitudes ($\beta = -0.145$, $p < .001$), suggesting storytelling approaches may be particularly effective for skeptical consumers. This approach leverages transportation's demonstrated effect on reducing counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), addressing potential resistance among skeptical consumers. Implementation involves developing high-narrativity stories with clear causal connections and evidence-based content, particularly emphasizing physical outcomes that provide concrete verification of healthcare quality.
- **For healthcare-positive audiences.** Implement more direct, information-focused approaches that complement existing positive attitudes. Study 2 demonstrated that narrative effects were weaker for individuals with more positive healthcare attitudes, suggesting less need for transportation-enhancing approaches to overcome resistance. This approach acknowledges that consumers with positive healthcare attitudes may require less persuasive effort through narrative engagement, allowing for more efficient communication approaches. Implementation involves balancing story elements with direct information about healthcare offerings, recognizing that these audiences may benefit from straightforward details alongside limited story elements.

- **For new-patient acquisition.** Emphasize identification-enhancing character development that facilitates emotional connection. Study 2 demonstrated that identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$), suggesting character-focused approaches may be particularly effective for emotional engagement. This approach leverages character presence effects on identification ($\beta = 0.151$, $p < .001$) and perceived similarity ($\beta = 0.167$, $p < .001$) to create emotional connection with potential patients who lack direct experience with the healthcare brand. Implementation involves developing relatable characters that represent target audience attributes and experiences, addressing Martel et al.'s (2022) finding that character attributes significantly influence identification and persuasion.
- **For patient retention.** Balance evidence-based content with experience content that helps existing patients navigate future treatment phases. Study 1 demonstrated that experience content showed stronger effects on affective forecasting than other content types (coefficient difference vs. physical = 0.637 , $p < .001$; vs. psychological = 1.160 , $p < .001$), suggesting this content may be particularly valuable for helping existing patients anticipate future treatment experiences. This approach acknowledges that existing patients have different informational needs than potential patients, particularly regarding what to expect in subsequent treatment phases. Implementation involves developing stories that illustrate typical experiences across the treatment continuum, addressing Wilson

and Gilbert's (2003, 2005) finding that people often struggle to accurately predict their future emotional states in unfamiliar healthcare contexts.

These audience-specific considerations address the finding that narrative engagement effects vary systematically based on audience characteristics, particularly healthcare attitudes. By tailoring storytelling approaches to audience segments based on these moderating factors, healthcare communicators can optimize effectiveness across diverse audience groups rather than applying uniform approaches regardless of audience characteristics. This strategic targeting addresses what Schwartz and Woloshin (2016) identify as a central ethical concern in healthcare advertising: how storytelling approaches might help or hinder informed decision making for vulnerable consumers. If stories serve as bridges to engage healthcare-skeptical consumers, they may provide valuable pathways for reaching consumers who might otherwise resist traditional healthcare marketing approaches.

Measurement and Testing Framework

The empirical methods used in both studies provide a foundation for measurement approaches that healthcare communicators can use to assess and refine patient stories. The validated measures developed and tested in this research can be adapted for pre-testing patient stories before deployment, providing evidence-based evaluation of narrative effectiveness across multiple dimensions. This measurement framework addresses what Berry et al. (2020) identify as a critical need for systematic assessment of how patient stories influence consumer healthcare decisions, particularly given the high stakes of cancer treatment choices. The following measurement approaches translate

experimental methods into practical tools for healthcare communication evaluation and optimization.

Key Measurement Dimensions. Building on the empirical findings from both studies, the measurement framework focuses on four critical dimensions of patient story effectiveness that healthcare communicators should assess during story development and refinement:

- **Narrative engagement.** Measure transportation and identification to evaluate how effectively stories engage audiences through different mechanisms. Study 2 demonstrated that these processes contribute to ad effectiveness through different pathways (transportation: indirect effect $\beta = 0.116$, $p < 0.001$; identification: indirect effect $\beta = 0.104$, $p < 0.001$), suggesting both should be measured independently. Implementation involves adapting validated transportation scales (Green & Brock, 2000, 2002) and identification measures (Cohen, 2001) used in the experimental studies, focusing on immersion in the story world (transportation) and perspective-taking with specific characters (identification). These measures address the dual mechanism pathways identified in the research, acknowledging that transportation primarily reduces resistance while identification primarily enhances emotional engagement.
- **Resistance processes.** Measure counter-arguing and persuasion knowledge activation to evaluate how effectively stories reduce resistance to persuasion. Study 2 demonstrated that transportation showed stronger effects on reducing counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$) than identification, making these important indicators of narrative

effectiveness. Implementation involves adapting the counter-arguing and persuasion knowledge measures used in Study 2, focusing on critical evaluation of message claims (counter-arguing) and recognition of persuasive intent (persuasion knowledge activation). These measures address the resistance reduction function of transportation, acknowledging that effective patient stories should balance persuasive impact with opportunities for critical evaluation that support informed decision making.

- **Emotional responses.** Assess emotional engagement to evaluate identification effects, given the strong relationship between identification and emotional responses ($\beta = 0.530$, $p < .001$) observed in Study 2. Implementation involves adapting the emotional response measures used in the experimental studies, focusing on specific emotions associated with patient stories—including feelings of hope, inspiration, being moved, touched, and uplifted. These measures address the emotional engagement function of identification, acknowledging that patient stories should create emotional resonance while simultaneously demonstrating healthcare brand quality.
- **Ad effectiveness outcomes.** Measure brand beliefs, attitudes, intentions, and trust to evaluate overall effectiveness of patient stories. Study 1 demonstrated content-specific effects on these outcomes, while Study 2 revealed that transportation and identification influenced these outcomes through different pathways. Implementation involves adapting the ad effectiveness measures used in both studies, focusing on specific belief dimensions (effectiveness, meaning, experience), overall brand attitudes, behavioral intentions, and trust. These

measures address the ultimate persuasion objectives of patient stories, acknowledging that healthcare brands use stories to influence consumer healthcare decisions through multiple persuasion pathways.

Testing Approaches. The experimental methods used in this research suggest several testing approaches that healthcare communicators can implement to evaluate and refine patient stories before deployment. These approaches translate experimental designs into practical testing frameworks that address the complexities of patient story effectiveness:

- **A/B testing.** Compare different story configurations to identify optimal approaches for specific audience segments. Study 2 demonstrated that different combinations of plot structure and character presence influenced outcomes through different pathways, suggesting A/B testing could identify optimal configurations for specific objectives. This approach addresses the complementary rather than purely synergistic relationship between story elements observed in Study 2. Implementation involves developing alternative story versions that systematically vary content emphasis, character presence, or plot structure while maintaining consistent core messaging, then testing these alternatives with target audiences to identify optimal configurations.
- **Sequential testing.** Test story elements individually before testing integrated approaches, allowing for isolation of specific effects before examining combined impact. Study 1 deliberately deconstructed patient stories to understand component effects, providing valuable insights into how content types function in isolation. This approach addresses the progression from isolated components to

integrated stories that characterized this dissertation research. Implementation involves testing content types separately before testing complete stories, allowing for strategic refinement of individual elements before integration.

- **Moderation analysis.** Evaluate how narrative effectiveness varies based on audience characteristics, particularly healthcare attitudes. Study 2 demonstrated that healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, suggesting attitude-based segmentation may be particularly valuable. This approach addresses the finding that storytelling approaches had stronger effects for individuals with less positive healthcare attitudes. Implementation involves including healthcare attitude measures in testing protocols and analyzing how effectiveness varies based on these attitudes, allowing for targeted optimization based on audience characteristics.
- **Process evaluation.** Assess both mechanism activation and ultimate outcomes to understand how stories achieve their effects. Both studies examined not only persuasion outcomes but also the mechanisms through which these outcomes were achieved, providing deeper insight into how patient stories function. This approach addresses the dual-mechanism pathways identified in Study 2, acknowledging that different story configurations may achieve similar outcomes through different processes. Implementation involves measuring both engagement mechanisms (transportation, identification) and persuasion outcomes (beliefs, attitudes, intentions, trust) to understand not just whether stories work but how they work.

These approaches to measurement and testing translate experimental methods into practical tools that healthcare communicators can use to develop and refine more effective patient stories. By adapting validated measures and testing procedures, healthcare brands can implement evidence-based approaches that optimize story structure for specific communication objectives and audience characteristics. This systematic approach addresses what Schenker et al. (2014) identify as a critical need for empirical evaluation of healthcare advertising, particularly given academic health centers' enhanced obligations to public trust and evidence-based medicine.

Evidence-Based Implementation Framework

The findings from both studies support an evidence-based implementation framework that guides patient story development based on specific communication objectives and empirical patterns rather than universal "best practices." This framework translates complex empirical patterns into actionable guidance for healthcare communicators, acknowledging that different story configurations serve distinct persuasive functions. This approach addresses what McLeod (2022, 2023) and Willett (2024) identify as the strategic craft involved in patient story development, where healthcare brands make deliberate decisions about content selection, character presentation, and plot structure to achieve organizational objectives.

Strategic Element Selection. When facing resource constraints, healthcare communicators must make strategic decisions about which story elements to prioritize based on specific persuasion objectives. Study 2 demonstrated that different configurations of story elements achieved significant improvements compared to control: high narrativity with character present ($\beta = 0.251$, $p < .001$), high narrativity without

character ($\beta = 0.232$, $p < .001$), and low narrativity with character present ($\beta = 0.193$, $p = .002$). These findings suggest strategic element selection can achieve significant improvements even when resource constraints prevent maximizing all elements. The following strategic selection approaches translate these findings into practical implementation guidance:

- **For maximizing overall ad effectiveness.** When resources allow comprehensive story development, implement high narrativity with character present. This configuration, which most closely represents real-world patient stories, showed the strongest effects on ad effectiveness compared to control ($\beta = 0.251$, $p < .001$) in Study 2, suggesting it represents the optimal configuration when resources permit. Implementation involves developing well-structured patient stories with identifiable characters that facilitate both transportation and identification, addressing Berry et al.'s (2020) observation that healthcare brands strategically combine multiple elements to influence consumer healthcare decisions.
- **For resource-constrained communication.** When facing significant resource constraints, prioritize high narrativity without character development. This approach significantly enhanced ad effectiveness compared to control ($\beta = 0.232$, $p < .001$) without requiring character development resources. Implementation involves developing cohesive stories around the patient journey without investing in character development, allowing audiences to project themselves into the story. This approach addresses the finding that high narrativity enhanced transportation ($\beta = 0.093$, $p = 0.014$) and reduced counter-arguing ($\beta = -0.066$, $p = 0.068$) even without character presence.

- **For emotional enhancement focus.** When emotional engagement represents the primary objective, prioritize character development even with simpler plot structures. Low narrativity with character present significantly enhanced ad effectiveness compared to control ($\beta = 0.193$, $p = .002$) in Study 2, suggesting this configuration can achieve significant improvements with less complex plot development. Implementation involves developing compelling patient characters that facilitate identification and emotional engagement without investing in complex plot development. This approach addresses the finding that identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$).
- **For resistance reduction focus.** When reducing counter-arguing represents the primary objective, prioritize high narrativity that enhances transportation. Study 2 demonstrated that transportation significantly reduced counter-arguing ($\beta = -0.568$, $p < .001$), suggesting high-narrativity structures that enhance transportation may be particularly valuable for addressing resistance. Implementation involves developing coherent plot structures with clear causal connections, even if character development resources are limited. This approach addresses the finding that transportation, not identification, primarily reduced resistance processes in Study 2.

Implementation Refinement. The modest effect sizes observed across both studies (typically $R^2 < 0.30$) suggest that story elements function as optimization rather than transformation factors, requiring ongoing refinement rather than one-time

implementation. The following refinement approaches translate experimental findings into continuous improvement processes for patient story development:

- **Adaptation framework.** Use testing results to refine storytelling approaches based on specific audience characteristics and communication objectives. Study 2 demonstrated that healthcare attitudes significantly moderated narrative effects, with stronger effects for individuals with less positive attitudes. Implementation involves tailoring patient stories based on audience research that identifies attitudinal characteristics of target segments, allowing for targeted optimization rather than universal approaches.
- **Element balancing.** Implement complementary rather than purely additive approaches to story element development. Study 2 revealed that story elements function as complementary rather than purely synergistic factors, suggesting strategic balance rather than maximization across all dimensions. Implementation involves making strategic trade-offs between story elements based on specific communication objectives, acknowledging that different configurations may achieve similar outcomes through different pathways.
- **Content-structure alignment.** Ensure content emphasis aligns with structural elements based on Study 1 findings about content-specific processing routes. Implementation involves selecting plot structures and character approaches that align with the dominant content type in the story, addressing the Content-Conditional Processing Proposition that different content types activate distinct processing routes that may be enhanced by different structural configurations.

- **Continuous improvement.** Implement ongoing testing and refinement rather than applying static approaches across communications. The modest effect sizes observed across studies suggest incremental improvements through evidence-based refinement can enhance effectiveness over time. Implementation involves establishing systematic feedback loops that continuously evaluate and refine patient story effectiveness across multiple dimensions, addressing what Schenker et al. (2014) identify as healthcare brands' enhanced obligations to balance persuasive effectiveness with ethical responsibility toward vulnerable consumers. These evidence-based implementation approaches translate complex empirical patterns into actionable guidance that healthcare communicators can use to develop and refine more effective patient stories. By making strategic decisions based on specific communication objectives and audience characteristics, healthcare brands can optimize persuasive impact while supporting informed decision making—addressing the central tension in healthcare advertising identified by both researchers (Berry et al., 2020; Schenker et al., 2014) and practitioners (McLeod, 2022, 2023; Willett, 2024).

Ethical Implications

The empirical findings from both studies raise important ethical considerations for patient story advertising in healthcare contexts. While patient stories can provide hope and information to potential patients, the demonstrated influence of specific story features on consumer decision making creates enhanced ethical responsibilities for healthcare brands. This section examines the ethical implications of narrative persuasion in the high-stakes context of cancer care, where patients must make life-altering decisions under conditions of vulnerability and uncertainty. Rather than simplistically treating storytelling

approaches as either uniformly beneficial or problematic, this analysis acknowledges both the legitimate role of patient stories in healthcare communication and the heightened ethical obligations they create—particularly for academic health centers that operate at the intersection of patient care, medical education, and research (Schwartz & Woloshin, 2016).

Balancing Persuasion and Informed Decision-Making

The findings demonstrate a fundamental tension between narrative persuasion and informed decision making that requires careful ethical consideration. Study 2 revealed that transportation significantly reduced both counter-arguing ($\beta = -0.568$, $p < .001$) and persuasion knowledge activation ($\beta = -0.286$, $p = .047$), suggesting that immersive stories may simultaneously enhance persuasion while potentially diminishing critical evaluation of message claims. This tension takes on particular significance in healthcare contexts, where decisions carry profound consequences and consumers often lack the expertise to independently evaluate quality claims (Angerer et al., 2023; Schenker et al., 2014). Healthcare brands face ethical obligations to develop patient stories that balance persuasive effectiveness with support for informed healthcare decision making.

Ethical Enhancement Framework. The empirical findings suggest several approaches for using story elements to enhance rather than undermine informed choice. Rather than positioning narrative persuasion as inherently problematic, these approaches leverage story features to facilitate both emotional engagement and critical evaluation—addressing what Schenker et al. (2014) identify as a central ethical concern in healthcare advertising:

- **Balanced content integration.** Integrate outcome content with appropriate experience content to enhance both effectiveness beliefs and affective forecasting accuracy. Study 1 demonstrated that physical outcome content enhanced brand beliefs while experience content enhanced affective forecasting, suggesting balanced integration may support both persuasion and decision quality. This approach acknowledges both the legitimate persuasive function of outcome content and the decision-supporting function of experience content, addressing Berry et al.'s (2020) observation that effective patient stories should balance claims about outcomes with realistic portrayals of treatment experiences.
- **Strategic character implementation.** Use character presence strategically to enhance identification while avoiding potential manipulation through excessive transportation. Study 2 revealed that identification primarily enhanced emotional engagement ($\beta = 0.530$, $p < .001$) while transportation primarily reduced resistance ($\beta = -0.568$, $p < .001$), suggesting character approaches can be designed to enhance connection without eliminating critical evaluation. This approach leverages character presence to create emotional resonance while maintaining appropriate space for analytical processing, addressing Martel et al.'s (2022) finding that healthcare brands carefully craft character presentations to maximize consumer emotional engagement.
- **Transparent plot structure.** Develop high-narrativity structures that enhance processing fluency while maintaining clear causal connections that support critical evaluation. Study 2 demonstrated that high narrativity enhanced transportation ($\beta = 0.093$, $p = 0.014$) while reducing counter-arguing ($\beta = -0.066$,

$p = 0.068$), suggesting well-structured plots can facilitate both engagement and evaluation. This approach acknowledges Schreiner et al.'s (2018) observation that narrativity enhances processing fluency without necessarily eliminating analytical assessment, particularly when causal connections are made explicit.

- **Tailored enhancement approaches.** Adapt ethical enhancement strategies based on audience characteristics and communication objectives. Study 2 revealed that healthcare attitudes significantly moderated narrative effects ($\beta = -0.145$, $p < .001$), suggesting enhancement approaches should vary based on audience segments and persuasion goals. This tailored approach acknowledges Dutta-Bergman's (2004) finding that healthcare attitudes significantly influence how consumers process healthcare messages, requiring differentiated ethical approaches rather than uniform standards across communications.

These enhancement approaches directly address what Rubenson and Kapp (2017) and Schwartz and Woloshin (2016) identify as healthcare brands' obligation to balance organizational objectives with public health responsibilities. Rather than treating persuasion and informed decision making as inherently opposed, this framework acknowledges that well-designed patient stories can simultaneously achieve persuasive objectives and support informed choice—particularly when content, character, and plot elements are configured to enhance rather than undermine consumer autonomy.

Responsibility Framework for Vulnerable Consumer Protection. The responsibility framework applies the enhancement approaches to specific contexts where vulnerability may heighten ethical concerns. This context-specific approach

acknowledges that patient story advertising's ethical implications vary based on decision stakes, consumer vulnerability, and institutional factors:

- **High-stakes decision contexts.** Implement enhanced content requirements for life-altering decisions, particularly regarding experimental treatments or aggressive interventions. Study 1 demonstrated that isolated content types activate distinct processing routes, suggesting content emphasis significantly influences decision processing. This approach acknowledges Hlubocky et al.'s (2020) observation that cancer patients' vulnerability stems from the combination of complex medical decisions and emotional distress, requiring heightened ethical standards for storytelling approaches targeting these decisions.
- **Vulnerability-adaptive standards.** Adjust balance requirements based on vulnerability factors such as emotion intensity, decision significance, and healthcare literacy. Study 2 demonstrated that healthcare attitudes significantly moderated narrative effects ($\beta = -0.145$, $p < .001$), suggesting vulnerability may influence susceptibility to narrative persuasion. This approach acknowledges Berry et al.'s (2020) finding that vulnerability factors significantly influence how consumers process healthcare information, requiring adaptive ethical standards rather than uniform approaches across contexts.
- **Institutional responsibility tiers.** Implement graduated ethical standards based on institutional type and mission, with enhanced requirements for academic health centers that hold positions of trust through their education and research missions. This approach acknowledges Schwartz and Woloshin's (2016) observation that academic health centers have enhanced obligations to public trust given their

nonprofit status and societal roles, requiring higher ethical standards compared to for-profit healthcare brands operating under standard commercial regulations.

- **Information architecture integration.** Position patient stories within broader information ecosystems that include both narrative and analytical content options. This approach acknowledges that while stories powerfully influence decisions, they should complement rather than replace evidence-based decision supports. This integration addresses Schenker et al.'s (2014) recommendation to adapt mechanisms used for regulating prescription drug advertisements to healthcare services advertising, requiring balanced presentation of risks and benefits. This responsibility framework addresses what Berry et al. (2020) identify as concerning patterns in healthcare narrative advertising while acknowledging the legitimate role of patient stories in helping vulnerable consumers navigate complex healthcare decisions. Rather than eliminating storytelling approaches, which Study 2 demonstrated may be particularly valuable for reaching healthcare-skeptical consumers ($\beta = -0.145$, $p < .001$), this framework establishes context-specific standards that protect vulnerable consumers while preserving narrative benefits. This balanced approach aligns with Schwartz and Woloshin's (2016) suggestion that academic health centers should voluntarily follow enhanced ethical standards by submitting advertisements to institutional review boards to assess whether they help or hinder informed decision making.

Transparency Considerations

The findings demonstrate that patient stories influence consumer response through multiple mechanisms that may not be fully transparent to consumers. Study 2

revealed that transportation and identification function as distinct mechanisms with different persuasive consequences, suggesting consumers may be influenced without full awareness of how story features shape their decisions. This limited transparency raises ethical questions about consumer autonomy, particularly in contexts where narrative persuasion may override analytical processing without explicit awareness. Healthcare brands face ethical obligations to implement transparency approaches that respect consumer autonomy while maintaining narrative effectiveness.

Guidelines for Appropriate Disclosure. The empirical findings suggest several approaches for enhancing transparency without eliminating narrative benefits. Rather than positioning disclosure as inherently opposed to persuasion, these approaches leverage consumer education and appropriate labeling to enhance autonomy while maintaining engagement.

- **Strategic disclosure placement.** Implement disclosure approaches that respect narrative integrity while providing necessary information. Study 2 demonstrated that transportation significantly reduced counter-arguing ($\beta = -0.568$, $p < .001$), suggesting within-narrative disclosures may be processed less critically than framing disclosures. This approach acknowledges the tension between disclosure requirements and narrative engagement, suggesting strategic placement that maintains story immersion while providing necessary information. This aligns with Schenker et al.'s (2014) recommendation to adapt prescription drug advertisement regulations to healthcare services without eliminating narrative benefits.

- **Balanced exemplification disclosure.** Disclose whether patient stories represent typical or exceptional cases, particularly regarding outcomes and experiences. Study 1 demonstrated that physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains, suggesting outcome representation significantly influences consumer perceptions. This disclosure approach addresses Berry et al.'s (2020) finding that healthcare brands routinely use individual patient cases to highlight atypical outcomes while failing to disclose typical patient experiences, creating potential for misinformed decision making.
- **Narrative-analytical integration.** Develop message architecture that integrates narrative engagement with analytical information access. Study 2 demonstrated that transportation and identification functioned as complementary mechanisms with different persuasive consequences, suggesting integrated approaches could leverage both pathways. This integration approach addresses the dual needs identified by Hlubocky et al. (2020), where cancer patients require both emotional support through stories and factual information for informed decisions.
- **Educational-context creation.** Create consumer education resources about how patient stories function in healthcare decision making. The findings demonstrated that patient stories influence consumers through multiple mechanisms, suggesting education could enhance critical processing without eliminating benefits. This educational approach addresses what Rubenson and Kapp (2017) identify as information asymmetry in healthcare contexts, where consumers may lack understanding of how narrative evidence differs from statistical evidence when making healthcare decisions.

These transparency approaches acknowledge that narrative persuasion operates through both conscious and non-conscious processes, creating ethical obligations for appropriate disclosure and consumer education. Rather than eliminating storytelling approaches, which Study 2 demonstrated may be particularly valuable for reaching healthcare-skeptical consumers ($\beta = -0.145$, $p < .001$), these approaches enhance transparency while preserving narrative benefits. This balanced perspective addresses the ethical tension between persuasion and autonomy while acknowledging the legitimate role of patient stories in healthcare communication.

Typical versus Exceptional Representation. Content analyses have documented concerning patterns in healthcare narrative advertising, where patient stories disproportionately feature exceptional rather than typical outcomes (Berry et al., 2020; McLeod, 2022). These patterns raise important ethical questions about representation and typicality that require careful consideration, particularly given Study 1's finding that physical outcome content functioned as a cognitive anchor that facilitated belief formation across domains. The following approaches address these representation concerns while preserving narrative benefits:

- **Balanced outcome representation.** Include content about both typical and exceptional outcomes rather than focusing exclusively on extraordinary success cases. This approach acknowledges Berry et al.'s (2020) finding that healthcare brands routinely use individual patient cases to highlight atypical outcomes while failing to disclose typical patient experiences. Implementation involves developing content standards that specify how typical versus exceptional outcomes should be balanced and disclosed, acknowledging the significant

influence of outcome representation on consumer perceptions documented in Study 1.

- **Authentic experience portrayal.** Develop experience content that authentically represents treatment realities rather than presenting selectively positive portrayals. This approach addresses McLeod's (2023) finding that 93% of cancer patient story endings featured "kicker quotes" emphasizing patient gratitude and resilience, potentially creating unrealistic expectations about typical treatment experiences. Implementation involves developing balanced experience portrayals that acknowledge challenges alongside positive aspects, addressing Study 1's finding that experience content significantly enhanced affective forecasting—suggesting experience representation influences how consumers envision potential healthcare experiences.
- **Clear statistical context.** Provide statistical context for individual narratives to help consumers understand how representative the featured outcomes and experiences are. This approach addresses what Freling et al. (2020) identify as the common pattern where emotionally compelling anecdotal evidence (patient stories) overrides more representative statistical evidence in healthcare decision making. Implementation involves developing contextual frameworks that integrate narrative and statistical evidence rather than presenting stories in isolation, acknowledging the persuasive power of exemplars documented in both experimental studies.

These representation approaches address what Berry et al. (2020) identify as concerning patterns in healthcare narrative advertising while acknowledging the

legitimate role of patient stories in helping vulnerable consumers navigate complex healthcare decisions. Rather than eliminating storytelling approaches, which would restrict potential benefits for consumers who find value in these stories, these approaches enhance transparency and representation while preserving narrative advantages. This balanced perspective addresses ethical tension while supporting organizational communication objectives.

Vulnerable Population Considerations

The findings demonstrate that narrative effects vary systematically based on audience characteristics, raising important ethical considerations for vulnerable populations. Study 2 revealed that healthcare attitudes significantly moderated both transportation ($\beta = -0.145$, $p < .001$) and identification ($\beta = -0.124$, $p = .002$) effects on ad effectiveness, with stronger effects observed for individuals with less positive healthcare attitudes. This pattern raises important questions about differential vulnerability to narrative persuasion, particularly for populations already experiencing healthcare disparities or facing high-stakes decisions with limited information. Healthcare brands face enhanced ethical obligations when using patient stories to reach these vulnerable populations.

Special Considerations for High-Stakes Decisions. Cancer treatment decisions represent particularly high-stakes choices, where patients must make life-altering decisions under conditions of vulnerability and uncertainty (Berry et al., 2020; Hlubocky et al., 2020). The following approaches address special ethical considerations for narrative persuasion in these contexts:

- **Enhanced balance requirements.** Implement stricter content balance requirements for high-stakes treatment decisions, particularly regarding experimental or aggressive interventions. Study 1 demonstrated that different content types activate distinct processing routes, suggesting content balance significantly influences decision processing. This approach acknowledges Hlubocky et al.'s (2020) observation that cancer patients' vulnerability stems from the combination of complex medical decisions and emotional distress, requiring heightened ethical standards for storytelling approaches targeting these decisions.
- **Decisional stage adaptation.** Adapt storytelling approaches based on decision stage, with different ethical requirements for awareness-building versus specific treatment decision support. The findings demonstrated that different story elements serve distinct persuasive functions, suggesting ethical requirements should vary based on decision proximity and significance. This adaptation approach acknowledges that narrative influence raises different ethical concerns across the decision continuum, from initial awareness through specific treatment selection to post-treatment support.
- **Educational support integration.** Integrate storytelling approaches with decision-support resources that enhance health literacy and decision-making capacity. Study 2 demonstrated that transportation significantly reduced counter-arguing ($\beta = -0.568$, $p < .001$), suggesting narrative immersion may benefit from complementary analytical support. This integration approach addresses what Schenker et al. (2014) identify as information asymmetry in healthcare contexts,

where consumers often lack the expertise to independently evaluate quality claims made through patient stories.

- **Supportive consent processes.** Develop enhanced consent processes for narrative-influenced decisions that ensure understanding of typical outcomes and experiences. Study 1 demonstrated that physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains, suggesting outcome representation significantly influences consumer perceptions. This consent approach acknowledges Berry et al.'s (2020) finding that healthcare brands routinely use individual patient cases to highlight atypical outcomes while failing to disclose typical patient experiences, creating potential for misinformed consent. These high-stakes considerations acknowledge the enhanced ethical obligations created by narrative persuasion in cancer treatment contexts. Rather than eliminating storytelling approaches, which Study 2 demonstrated may be particularly valuable for reaching healthcare-skeptical consumers ($\beta = -0.145$, $p < .001$), these approaches enhance consumer protection while preserving narrative benefits. This balanced perspective addresses the ethical tension between persuasion and autonomy while acknowledging the legitimate role of patient stories in helping vulnerable consumers navigate complex healthcare decisions.

Applications for Reducing Healthcare Disparities. The dissertation findings suggest several approaches for using patient stories to address rather than exacerbate healthcare disparities. While content analyses have documented concerning patterns in representation, where patient stories disproportionately feature middle-class, white, middle-aged patients as central characters (Martel et al., 2022), the findings suggest

storytelling approaches might simultaneously enhance effectiveness and address disparities through these approaches:

- **Diverse character representation.** Develop patient stories that authentically represent diverse patient populations rather than relying predominantly on majority-group exemplars. Study 2 demonstrated that character presence significantly enhanced perceived similarity ($\beta = 0.167$, $p < 0.001$), suggesting representation influences identification processes. This approach addresses Martel et al.'s (2022) finding that patient stories predominantly feature white, middle-class patients, potentially limiting identification for diverse audiences.
- **Culturally adaptive content.** Adapt content emphasis based on cultural factors that influence healthcare decision making. Study 1 demonstrated that different content types activate distinct processing routes, suggesting content adaptation may enhance effectiveness across cultural contexts. This adaptation approach acknowledges research showing that healthcare decisions are influenced by cultural factors that affect how narrative evidence is processed and evaluated (Dutta-Bergman, 2004).
- **Healthcare attitude targeting.** Develop targeted storytelling approaches for audiences with less positive healthcare attitudes, who showed stronger narrative effects in Study 2 ($\beta = -0.145$, $p < .001$). This targeting approach leverages the finding that storytelling approaches may be particularly effective for reaching skeptical consumers, potentially addressing disparities stemming from healthcare system distrust. This approach acknowledges research showing that healthcare

disparities partly stem from attitudinal factors that influence healthcare engagement and decision making (Meyer et al., 2024; Straten et al., 2002).

- **Health literacy enhancement.** Use storytelling approaches to enhance health literacy alongside persuasion objectives. Study 1 demonstrated that different content types facilitate different types of learning, with experience content enhancing affective forecasting while outcome content enhances beliefs. This enhancement approach acknowledges research showing that health literacy represents a significant factor in healthcare disparities, suggesting storytelling approaches might simultaneously address literacy barriers and persuasion objectives.

These disparity-reduction approaches address what Martel et al. (2022) identify as concerning patterns in representation while leveraging narrative benefits to address broader healthcare access challenges. Rather than treating disparities as separate from narrative effectiveness, these approaches integrate diversity considerations into story design while maintaining persuasive impact. This integrated perspective addresses ethical concerns about representation while supporting both organizational objectives and broader health equity goals.

Adaptive Approaches for Different Health Literacy Levels. The findings suggest several approaches for adapting patient stories to different health literacy levels without sacrificing effectiveness. While healthcare decisions require significant medical knowledge that many consumers lack, the findings suggest storytelling approaches can be adapted across literacy levels through these approaches:

- **Content adaptation:** Vary content emphasis based on health literacy levels, with different approaches for different literacy segments. Study 1 demonstrated that different content types activate distinct processing routes, suggesting content adaptation may enhance effectiveness across literacy contexts. This adaptation approach acknowledges research showing that health literacy significantly influences how consumers process healthcare information, requiring tailored communication approaches (Dutta-Bergman, 2004).
- **Structural simplification:** Adapt plot structure complexity based on literacy level, with different narrativity approaches for different audiences. Study 2 demonstrated that both high and low narrativity improved ad effectiveness compared to control (high: $\beta = 0.166$, $p < 0.001$; low: $\beta = 0.109$, $p = 0.015$), suggesting narrativity can be adapted without eliminating benefits. This adaptation approach acknowledges research showing that processing capacity influences narrative effects, requiring structural adjustments across literacy levels.
- **Character representation:** Develop relatable characters that represent diverse literacy backgrounds rather than exclusively featuring highly educated patient exemplars. Study 2 demonstrated that character presence significantly enhanced perceived similarity ($\beta = 0.167$, $p < 0.001$), suggesting representation influences identification processes. This representation approach acknowledges research showing that identification is enhanced when consumers perceive similarity with characters, suggesting representation across educational backgrounds may enhance effectiveness for diverse literacy segments.

- **Multimodal integration:** Develop integrated storytelling approaches that combine textual, visual, and interactive elements to address different learning styles and literacy barriers. While the experimental studies focused on text-based stories, research suggests multimodal narratives may enhance effectiveness across literacy levels. This integration approach acknowledges research showing that multimodal presentations can address literacy barriers while enhancing engagement across diverse audience segments.

These literacy-adaptive approaches address what Schenker et al. (2014) identify as information asymmetry in healthcare contexts while maintaining narrative effectiveness across audience segments. Rather than sacrificing persuasive impact when communicating with lower-literacy audiences, these approaches enhance accessibility while preserving core narrative benefits. This adaptive perspective addresses ethical concerns about accessibility while supporting both organizational objectives and broader health literacy goals.

Regulatory and Policy Implications

The empirical findings raise important questions about regulatory oversight of patient story advertising, particularly given the current regulatory context that provides minimal consumer protection. Unlike pharmaceutical advertising, which faces strict Food and Drug Administration oversight requiring balanced presentation of risks and benefits, healthcare services advertising receives minimal federal scrutiny (Park et al., 2021; Schenker et al., 2014). The findings suggest several approaches for enhancing regulatory frameworks to protect consumer interests while preserving legitimate narrative benefits.

Potential Frameworks for Healthcare Narrative Advertising Oversight. The empirical findings suggest potential frameworks for enhancing regulatory oversight without eliminating narrative benefits. Rather than treating regulation as inherently opposed to narrative persuasion, these approaches leverage insights about how stories influence consumers to develop balanced oversight approaches:

- **Content balance requirements.** Implement regulations requiring balanced presentation of typical outcomes and experiences alongside exceptional cases. Study 1 demonstrated that physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains, suggesting outcome representation significantly influences consumer perceptions. This approach adapts pharmaceutical advertising requirements for healthcare services, addressing Schenker et al.'s (2014) recommendation to apply similar balance standards across healthcare advertising domains.
- **Representation standards.** Develop guidelines for appropriate representation across character attributes, ensuring patient stories reflect the diversity of patient populations. Study 2 demonstrated that character presence significantly enhanced perceived similarity ($\beta = 0.167$, $p < 0.001$), suggesting representation influences identification processes. This approach addresses Martel et al.'s (2022) finding that patient stories predominantly feature white, middle-class patients, potentially limiting identification for diverse audiences.
- **Decision-appropriate oversight.** Implement graduated oversight based on decision significance, with enhanced requirements for high-stakes contexts like cancer treatment. The findings demonstrated that different story elements serve

distinct persuasive functions, suggesting ethical requirements should vary based on decision proximity and significance. This approach acknowledges that narrative influence raises different regulatory concerns across the decision continuum, from initial awareness through specific treatment selection to post-treatment support.

- **Mechanism-based disclosure.** Develop disclosure requirements based on how stories influence consumers through transportation and identification. Study 2 demonstrated that transportation and identification function as distinct mechanisms with different persuasive consequences, suggesting disclosure requirements should address both pathways. This approach acknowledges the dual-mechanism pathways identified in the research, requiring disclosure approaches that address both resistance reduction through transportation and emotional engagement through identification.

These regulatory frameworks address what Berry et al. (2020) and Schenker et al. (2014) identify as concerning patterns in healthcare narrative advertising while preserving legitimate narrative benefits. Rather than eliminating storytelling approaches, which Study 2 demonstrated may be particularly valuable for reaching healthcare-skeptical consumers ($\beta = -0.145$, $p < .001$), these approaches enhance consumer protection while maintaining persuasive functionality. This balanced perspective addresses regulatory gaps while acknowledging the legitimate role of patient stories in healthcare communication.

Voluntary Standards for Academic Health Centers. Given their enhanced obligations to public trust, academic health centers may voluntarily implement higher

ethical standards for patient story advertising. Schwartz and Woloshin (2016) suggest academic health centers should voluntarily follow FTC rules and submit advertisements to institutional review boards to assess whether they help or hinder informed decision making. The findings suggest several approaches for voluntary standards that address narrative influence while preserving storytelling benefits.

- **Story review protocols:** Implement systematic review processes that evaluate patient stories based on content balance, character representation, and plot structure. The findings demonstrated that these elements significantly influence consumer response, suggesting review protocols should address all three dimensions. This approach aligns with Schwartz and Woloshin's (2016) recommendation that academic health centers submit advertisements to institutional review boards, extending this suggestion to specifically address story elements identified in the research.
- **Balance documentation standards.** Develop documentation requirements that demonstrate how patient stories balance promotional objectives with support for informed decision making. Study 2 demonstrated that transportation significantly reduced counter-arguing ($\beta = -0.568$, $p < .001$), suggesting immersive stories may simultaneously enhance persuasion while potentially diminishing critical evaluation. This documentation approach addresses what Schenker et al. (2014) identify as a central tension in healthcare advertising: how storytelling approaches might help or hinder informed decision making for vulnerable consumers.
- **Representative outcome standards.** Establish standards for including information about typical outcomes alongside exceptional cases featured in

patient stories. Study 1 demonstrated that physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains, suggesting outcome representation significantly influences consumer perceptions. This approach addresses Berry et al.'s (2020) finding that academic health centers routinely use individual patient cases to highlight atypical outcomes while failing to disclose typical patient experiences.

- **Educational integration requirements.** Develop standards for integrating patient stories within broader educational contexts that support informed decision making. The findings demonstrated that patient stories influence consumers through multiple mechanisms, suggesting educational integration could enhance critical processing without eliminating benefits. This integration approach addresses what Rubenson and Kapp (2017) identify as academic health centers' enhanced obligations to support public health through their communication practices.

These voluntary standards address what Schwartz and Woloshin (2016) identify as academic health centers' enhanced obligations to public trust while preserving legitimate narrative benefits. Rather than eliminating patient stories, which serve important communication functions beyond persuasion, these approaches enhance ethical oversight while maintaining storytelling advantages. This balanced perspective addresses ethical concerns about academic health center advertising while acknowledging the legitimate role of patient stories in helping vulnerable consumers navigate complex healthcare decisions.

Connections to Current Regulatory Discussions. The findings connect to ongoing policy discussions about healthcare advertising regulation, particularly regarding the Federal Trade Commission's (FTC) limited oversight of healthcare services advertising. The FTC has taken only one major action against a healthcare brand, when the agency ordered for-profit Cancer Treatment Centers of America to include prominent disclosures with nontypical patient testimonials (Schwartz & Woloshin, 2016). The findings suggest several approaches for enhancing regulatory oversight based on empirical evidence about how patient stories influence consumers:

- **Extended FTC jurisdiction:** Extend FTC oversight to nonprofit healthcare brands, which are currently exempt from FTC regulation and overseen instead by state attorneys general who rarely act on advertising issues (Rubenson & Kapp, 2017; Schwartz & Woloshin, 2016). The findings demonstrated that story elements significantly influence consumer response regardless of institutional type, suggesting regulatory gaps create potential for consumer harm. This approach addresses what Schwartz and Woloshin (2016) identify as a critical regulatory gap, where nonprofit academic health centers face less oversight despite their significant advertising investment.
- **Evidence-based disclosure requirements.** Develop disclosure requirements based on empirical evidence about how stories influence consumers through transportation and identification. Study 2 demonstrated that transportation and identification function as distinct mechanisms with different persuasive consequences, suggesting disclosure requirements should address both pathways. This approach aligns with the FTC's existing action against Cancer Treatment

Centers of America, extending disclosure requirements based on new empirical evidence about narrative influence mechanisms.

- **Content-conditional oversight.** Implement oversight approaches that vary based on content type and audience vulnerability. Study 1 demonstrated that different content types activate distinct processing routes, suggesting oversight approaches should vary based on content emphasis and audience factors. This approach addresses limitations in current regulatory frameworks, which treat all healthcare advertising similarly regardless of content emphasis or audience vulnerability.
- **Integrated oversight framework.** Develop integrated oversight frameworks that address both pharmaceutical and healthcare services advertising, creating consistent standards across healthcare domains. The findings demonstrated that patient stories influence decision making through multiple mechanisms, suggesting integrated oversight could enhance consumer protection across healthcare sectors. This approach addresses Schenker et al.'s (2014) recommendation to adapt mechanisms used for regulating prescription drug advertisements to healthcare services advertising, creating more consistent consumer protection across healthcare domains.

These regulatory connections address limitations in current oversight frameworks while suggesting empirically grounded approaches for enhancing consumer protection. Rather than eliminating storytelling approaches, which serve legitimate communication functions, these approaches enhance oversight based on evidence about how stories influence vulnerable consumers in healthcare contexts. This balanced perspective

addresses regulatory gaps while acknowledging the important role of patient stories in healthcare communication.

Limitations and Future Research

The findings from both studies should be interpreted in light of several important limitations that inform both the generalizability of results and directions for future research. These limitations reflect inherent constraints of the experimental approach while suggesting how subsequent research might build upon this foundation to further advance understanding of patient story advertising. The following analysis examines methodological limitations, framework boundary conditions, and research directions that emerge from the empirical findings, providing a balanced assessment of research constraints while identifying productive paths for future investigation.

Methodological Limitations

Several methodological factors constrain the interpretation and application of findings from both studies. While these limitations do not invalidate the research contributions, they provide important context for evaluating the evidence and suggest specific refinements for future research.

Effect Size Considerations. The small to medium effect sizes observed across both studies suggest that story elements function as optimization rather than transformation factors in patient story advertising. This pattern aligns with broader narrative persuasion research, where meta-analyses consistently show modest but significant effects of story features on persuasion outcomes (Braddock & Dillard, 2016; Shen et al., 2015; van Laer et al., 2014). Most relationship coefficients in Study 2 were in the small effect size range (standardized $\beta < 0.25$), with explained variance typically

below 5% for main effects models. The strongest effects were observed for identification's influence on emotional responses ($\beta = 0.530$) and transportation's influence on counter-arguing ($\beta = -0.568$), suggesting that these mediating mechanisms may be particularly important for enhancing emotional engagement and reducing resistance. However, even these stronger relationships explain only a portion of the overall variance in outcomes.

Several methodological factors may contribute to these modest effect sizes. First, the single-exposure design cannot capture cumulative effects that might develop through repeated exposure to patient stories over time. In real-world contexts, consumers may encounter multiple stories across channels and over extended periods, potentially creating stronger effects than observed in experimental settings. Second, the text-based format may not fully capture the experience of real-world patient stories, which often employ multimedia approaches including video, photography, and interactive elements that might enhance engagement and persuasion. Third, the experimental context necessarily removes the high-stakes decision environment that cancer patients experience, potentially limiting ecological validity. These constraints suggest that story elements should be viewed as strategic optimization elements rather than transformative factors—a particularly important consideration given healthcare brands' enhanced obligations to balance persuasive effectiveness with ethical responsibility toward vulnerable consumers (Schwartz & Woloshin, 2016).

The practical significance of these modest effects takes on heightened importance in healthcare contexts, where even small improvements in communication effectiveness could meaningfully impact consumer wellbeing. As Berry et al. (2020) note, cancer

patients face life-altering decisions based on limited information, making narrative evidence especially influential despite modest statistical effect sizes. The consistent pattern of story elements outperforming non-narrative control content suggests that strategic optimization of patient stories based on content type, character presence, and plot structure could incrementally enhance both persuasive impact and informed decision making—addressing what Schenker et al. (2014) identify as the central tension in healthcare advertising.

Generalizability Considerations. Several factors limit the generalizability of findings across different healthcare contexts, patient populations, and message formats. The focus on a general adult population sample rather than actual cancer patients or those actively considering treatment options represents an important boundary condition. Although the exclusion of participants with cancer history allowed for testing narrative effects without the confounding influence of prior treatment experiences, it also means the findings may not fully capture how patients with direct experience might process patient stories. This limitation is particularly relevant when considering the non-significant moderation effect of threat severity (H11a-d not supported), which challenges the prediction that health threat perceptions would amplify narrative effects. As Hlubocky et al. (2020) observe, cancer patients' vulnerability stems from the combination of complex medical decisions and emotional distress, creating a decision context that experimental designs with general populations cannot fully simulate.

The generalizability across healthcare conditions also warrants consideration. The stimuli focused specifically on colon cancer treatment rather than other health conditions, potentially limiting applicability to different healthcare contexts. Research shows that

narrative effects may vary based on condition characteristics such as perceived severity, prevalence, and social stigma (Shaffer et al., 2018a). Similarly, the focus on a single treatment approach (comprehensive cancer care) rather than comparing different treatment options may not capture how narratives function in comparative healthcare decision contexts, where consumers must evaluate multiple treatment alternatives with different risk-benefit profiles.

Additionally, the text-based format of the experimental stimuli represents another generalizability constraint. While patient stories appear across multiple media channels (Park et al., 2023), this dissertation focused exclusively on text-based stories. This limitation is significant given that healthcare brands increasingly deploy multimedia patient stories across owned, earned, and paid media channels (Willett, 2024). Research shows that presentation format can influence narrative engagement processes, with video potentially enhancing transportation while text may facilitate analytical processing (Shen et al., 2015). These format differences might interact with the effects of content type, character presence, and plot structure observed with text-based stimuli, potentially moderating the relationships identified in this research.

Measurement Considerations. The measurement approaches used in both studies introduce several limitations worth noting. First, while Study 2 measured counter-arguing and persuasion knowledge activation to address questions about resistance processes, these measures relied on self-report rather than cognitive response techniques that might capture more spontaneous resistance processes. This approach may underestimate resistance effects, particularly given that transportation's impact on counter-arguing ($\beta = -0.568$) was substantially stronger than its effect on persuasion

knowledge activation ($\beta = -0.286$). Future research could employ thought-listing protocols or response latency measures to capture resistance processes more directly and spontaneously, potentially revealing more nuanced effects of story elements on resistance reduction.

Second, the measurement model refinements for mediator variables warrant consideration when interpreting findings. The initial measurement model for mediator variables in Study 1 showed unacceptable fit ($CFI = 0.843$, $TLI = 0.826$), necessitating several modifications including parceling for identification, emotional response, and transportation, as well as allowing correlated residuals between conceptually related indicators. These modifications align with Shaffer et al.'s (2018a) Narrative Immersion Model (NIM) that conceptualizes narrative engagement as a hierarchical process progressing from interest through involvement (identification) to immersion (transportation). While these measurement decisions are theoretically justified, they highlight challenges in empirically distinguishing between interrelated narrative processes that may function as a continuum rather than as discrete mechanisms.

Third, the measurement of character perception in character-absent conditions relied on dichotomous (yes/no) responses rather than continuous measures that might capture gradations in perception. This approach, while efficient for initial exploration of the character perception phenomenon, limits understanding of how strongly participants perceived characters and what specific aspects of characters they constructed mentally. More detailed measures of character perception characteristics, including demographic attributes, personality traits, and emotional states, would provide richer understanding of how narrativity shapes character construction in character-absent stories.

Fourth, the research design did not allow for assessing long-term effects or behavioral outcomes beyond intentions. This limitation is particularly relevant given that patient stories might influence decision processes over extended timeframes rather than immediately after exposure. The emphasis on immediate perceptual and attitudinal measures may not fully capture how patient stories influence actual healthcare decisions in real-world contexts, where multiple exposures to various messages occur over time and in different contexts.

Framework Boundary Conditions

While the Patient Story Advertising Model (PSAM) integrates findings from both studies into a cohesive theoretical framework, several boundary conditions limit its application across different contexts. These boundary conditions clarify when and where the model might apply while identifying circumstances where different theoretical approaches might be more appropriate.

Healthcare Context Specificity. The PSAM was developed specifically for cancer care contexts, and its application to other healthcare domains requires careful consideration. Cancer treatment represents a high-stakes, low-frequency decision context where consumers face complex choices with significant potential consequences. Other healthcare contexts may involve different decision characteristics, including urgency, complexity, frequency, and reversibility. Preventive care decisions, for example, typically involve lower immediate stakes but higher frequency, potentially changing how story elements influence consumer response. Chronic condition management may involve ongoing decision sequences rather than discrete treatment choices, potentially creating different narrative engagement patterns. These contextual differences suggest the need to

validate the PSAM across different healthcare domains before assuming universal applicability.

The healthcare moderator findings—particularly that healthcare attitudes significantly moderated both transportation (H14a supported) and identification (H14g supported) effects on ad effectiveness—raise important questions about context specificity in narrative persuasion. The negative interaction effect, indicating stronger narrative effects for those with less positive healthcare attitudes, suggests that storytelling approaches may function differently in healthcare contexts compared to other consumer domains. The limited moderation by other healthcare variables (access, insurance status, health status, quality of life) warrants additional investigation, particularly given healthcare brands' enhanced obligations to vulnerable populations with limited healthcare access.

The non-significant moderation by health status and quality of life measures is particularly surprising given the visceral congruency framework (Freling et al., 2020), which suggests that health-related vulnerability should enhance narrative effects. This pattern suggests that subjective attitudes toward healthcare may be more important moderators of narrative effects than objective health status measures, an insight that warrants further exploration through studies that directly compare subjective and objective health moderators across diverse healthcare contexts.

Decision Stage Limitations. The PSAM examined narrative effects at a single decision stage rather than across the decision journey, potentially limiting its application to different phases of healthcare decision making. Consumer decision journeys typically involve multiple stages, including need recognition, information search, alternative

evaluation, purchase decision, and post-purchase evaluation (Park et al., 2023). The experimental stimuli positioned consumers at the alternative evaluation stage, where they assessed a specific healthcare provider, rather than earlier awareness-building or later post-treatment support stages. This decision-stage specificity represents an important boundary condition, as story elements might function differently across stages of the healthcare journey.

The effects of content type might particularly vary across decision stages. Experience content, for example, might be especially valuable during information search phases when consumers seek to understand what treatment feels like, while outcome content might be more influential during alternative evaluation when comparing provider quality. The Content-Moderated Dual-Process Model (CMDPM) specifically addresses how content types function in isolation during alternative evaluation, but different content effects might emerge at earlier or later decision stages. Future research should examine how story elements function across the healthcare decision journey, particularly how content effects might vary based on decision proximity and stage-specific information needs.

Patient-Caregiver Dynamic Boundaries. The PSAM examined individual consumer processing of patient stories rather than the complex decision dynamics that often characterize healthcare choices. Cancer treatment decisions, in particular, frequently involve both patients and caregivers working together to navigate complex options under conditions of vulnerability and uncertainty (Hlubocky et al., 2020). The experimental studies tested individual processing without capturing how narrative effects might function in relational decision contexts, where stories might influence multiple

individuals with different roles, perspectives, and information needs. This relational boundary condition is particularly important given that healthcare brands often target both patients and caregivers simultaneously, requiring storytelling approaches that address the needs of both audiences.

The effects of character presence might particularly vary across patient and caregiver audiences. Character identification processes might function differently for caregivers who project loved ones rather than themselves into patient roles, potentially creating distinct narrative engagement patterns. Study 2 demonstrated that identification showed stronger effects on emotional responses ($\beta = 0.530$, $p < .001$) than transportation ($\beta = 0.269$, $p = .047$), suggesting character-focused approaches may be particularly effective for emotional engagement. This effect might function differently for caregivers who experience emotions both directly and vicariously through concern for patients. Future research should examine how story elements function across patient-caregiver decision units, particularly how identification processes might vary across relational contexts.

Message Integration Limitations. The PSAM examined patient stories in isolation rather than as components of integrated marketing campaigns that typically combine multiple message types across channels. Healthcare brands typically deploy patient stories alongside statistical evidence, expert testimonials, organizational messaging, and analytical content that collectively shape consumer perceptions (Park et al., 2023). The experimental studies tested narrative effects without examining how patient stories interact with other message types, potentially limiting application to integrated marketing contexts where narrative and non-narrative content work together to

influence consumer decisions. This integration boundary condition is particularly important given that healthcare brands routinely combine multiple message types to address diverse audience needs and persuasion objectives.

The effects of content type might particularly vary in integrated message contexts. Physical outcome content showed unexpected versatility in Study 1, functioning as a cognitive anchor that enhanced beliefs across domains, but this effect might function differently when combined with statistical outcome evidence or expert testimonials. Similarly, experience content significantly enhanced affective forecasting in Study 1, but this effect might change when combined with technical information about treatment procedures or side effect disclosures. Future research should examine how story elements function within integrated message environments, particularly how content effects might change when patient stories appear alongside other evidence types commonly used in healthcare marketing.

Near-Term Research Directions

Building on the findings and limitations of this dissertation, several promising research directions emerge for extending understanding of patient story advertising. These directions address specific gaps in the current studies while leveraging the theoretical foundation established through the Content-Moderated Dual-Process Model (CMDPM) and the Patient Story Advertising Model (PSAM).

Model Validation Approaches. Initial validation efforts should focus on testing the Patient Story Advertising Model (PSAM) across different healthcare contexts, patient populations, and message formats. Several validation approaches would significantly extend the generalizability of findings:

- **Clinical population testing.** Validate findings with patients actively facing cancer treatment decisions to understand how narrative effects might function differently for those experiencing actual vulnerability and uncertainty (Shaffer et al., 2021). This approach would address the limitation of using general population samples, providing insight into how heightened involvement might moderate narrative effects. Research questions should focus on whether the Content-Conditional Processing Proposition functions similarly for patients with personal stakes in treatment outcomes, potentially revealing amplified content effects or different processing patterns based on disease state and treatment history.
- **Comparative healthcare context validation.** Test the PSAM across different healthcare domains including preventive care, chronic condition management, and acute care to determine whether content-conditional effects generalize across healthcare contexts (Perrier & Martin Ginis, 2018). This approach would address healthcare context specificity limitations, clarifying which aspects of the model remain constant across domains versus which elements require context-specific modification. Research questions should examine whether content-activated processing routes identified in Study 1 function similarly across healthcare domains with different decision characteristics, potentially revealing context-specific processing patterns that would refine the PSAM.
- **Multimedia format testing.** Extend findings to video-based patient stories and multi-channel campaigns to understand how presentation format influences narrative effects (Thomas & Grigsby, 2024). This approach would address the text-based format limitation, providing insight into how modality might moderate

content, character, and plot effects. Research questions should investigate whether the transportation and identification pathways identified in Study 2 function similarly across media formats, potentially revealing format-specific engagement patterns that would enhance application to multimedia patient stories increasingly used by healthcare brands.

- **Longitudinal effects assessment.** Examine narrative effects over time to understand how repeated exposure might create cumulative influence beyond single-exposure effects (Oschatz & Marker, 2020). This approach would address the limitation of using single-exposure designs, providing insight into how narrative effects might strengthen or evolve through multiple exposures. Research questions should focus on whether small effect sizes observed in experimental studies might amplify through repeated exposure, potentially revealing cumulative effects that would more accurately reflect real-world exposure patterns where consumers encounter multiple stories across channels and over time.

These validation approaches would significantly enhance understanding of when and where the PSAM applies, addressing key generalizability limitations while extending application to diverse healthcare contexts that better reflect the complex landscape where consumers encounter patient stories.

Mechanism Testing Refinements. Further research should refine understanding of the psychological mechanisms through which patient stories influence consumer response. The finding that transportation and identification function as distinct

mechanisms with different persuasive consequences suggests several refinement approaches:

- **Process-tracing methodology.** Implement eye-tracking or response latency methods to understand how consumers process different story elements in real time (Shapiro & Kim, 2012). This approach would address measurement limitations related to self-report resistance measures, providing more direct evidence of how consumers engage with and respond to story elements. Research questions should examine whether transportation processes manifest through different attention patterns than identification processes, potentially revealing distinct cognitive signatures that would enhance understanding of the dual-mechanism pathways identified in Study 2.
- **Physiological measurement integration.** Incorporate physiological measures of emotional engagement to complement self-report measures of narrative engagement (Kühn & Boshoff, 2023). This approach would address limitations related to measuring emotional responses through self-report alone, providing more objective indicators of how stories evoke emotional responses. Research questions should investigate whether different content types and character approaches evoke distinct physiological response patterns, potentially revealing emotional processing differences that would refine understanding of how narrative engagement influences healthcare decisions.
- **Resistance process elaboration.** Implement cognitive response techniques to capture spontaneous counter-arguing and other resistance processes (Ratcliff & Sun, 2020). This approach would address measurement limitations related to self-

report resistance measures, providing more detailed evidence of how stories reduce or enhance resistant responses. Research questions should examine the specific types of counter arguments generated in response to different content types and story structures, potentially revealing more nuanced resistance patterns that would enhance understanding of how transportation reduces counter-arguing ($\beta = -0.568$) as observed in Study 2.

- **Mechanism interaction analysis.** Examine interactions between transportation and identification to understand whether these mechanisms function independently, sequentially, or synergistically (Green, 2021). This approach would address theoretical questions about mechanism relationships, clarifying whether the Narrative Immersion Model's hierarchical conceptualization accurately reflects how consumers engage with patient stories. Research questions should investigate whether transportation enables identification, identification facilitates transportation, or these processes operate in parallel, potentially revealing complex interaction patterns that would refine theoretical understanding of narrative engagement processes.

These mechanism refinements would significantly enhance understanding of how patient stories influence consumer response, addressing measurement limitations while providing more detailed evidence of the specific cognitive and emotional processes through which story elements achieve their effects.

Context-Specific Applications. Future research should examine how the Patient Story Advertising Model (PSAM) applies in specific healthcare contexts with unique

characteristics that might influence narrative effects. Several contextual applications warrant investigation:

- **Decision complexity contexts.** Test narrative effects for simple versus complex treatment decisions to understand how decision characteristics moderate content and structure effects (Ellis et al., 2018). This approach would address decision stage limitations, providing insight into whether narrative effects vary based on choice complexity. Research questions should examine whether transportation's effect on reducing counter-arguing ($\beta = -0.568$) functions similarly across simple and complex decisions, potentially revealing decision-contingent effects that would enhance application to diverse healthcare contexts with varying complexity levels.
- **Risk level variation.** Examine narrative effects across low-risk, moderate-risk, and high-risk treatment contexts to understand how perceived risk influences content and structure effects (Haase et al., 2015). This approach would address healthcare context specificity limitations, clarifying whether narrative effects vary based on treatment risk perceptions. Research questions should investigate whether the Critical Evaluation Hypothesis developed in Study 1 functions differently across risk levels, potentially revealing risk-contingent skepticism patterns that would refine understanding of when and why character presence triggers critical evaluation.
- **Stigmatized condition contexts.** Test narrative effects for stigmatized versus non-stigmatized health conditions to understand how social perceptions influence content and structure effects (Murphy et al., 2013). This approach would address

healthcare context specificity limitations, providing insight into whether narrative effects vary based on condition stigma. Research questions should examine whether transportation's effect on reducing counter-arguing functions differently for stigmatized conditions, potentially revealing stigma-contingent resistance patterns that would enhance application to conditions where social factors significantly influence treatment decisions.

- **Technology-mediated contexts.** Examine narrative effects in telemedicine versus in-person care contexts to understand how service delivery mode influences content and structure effects (Volandes et al., 2009). This approach would address contemporary healthcare trends toward virtual care, providing insight into whether narrative effects vary based on care delivery mode. Research questions should investigate whether experience content functions differently in virtual versus physical care contexts, potentially revealing mode-specific processing patterns that would enhance application to evolving healthcare delivery systems.

These contextual applications would significantly extend understanding of when and where specific storytelling approaches might be most effective, addressing boundary condition limitations while providing more nuanced guidance for healthcare communicators operating in diverse contexts.

Long-Term Research Directions

Beyond addressing immediate limitations, a comprehensive research agenda should explore deeper questions about how patient stories function within the evolving healthcare communication landscape. This long-term agenda identifies foundational directions for understanding narrative effects in healthcare contexts.

Theoretical Extension Opportunities. Further theoretical development should focus on integrating the Patient Story Advertising Model (PSAM) with complementary frameworks that address important aspects of healthcare decision making. Several integration opportunities warrant exploration:

- **Temporal construal integration.** Examine how temporal distance influences narrative effects by integrating construal level theory with the PSAM (Pounders et al., 2023). This theoretical extension would address decision stage limitations by examining how narrative processing varies based on temporal proximity to healthcare decisions. Research questions should investigate whether content types function differently based on decision timing, potentially revealing how abstract versus concrete content processing changes across the pre-decision, active-decision, and post-decision phases of the healthcare journey.
- **Dual-process theory elaboration.** Develop more detailed understanding of how analytical and experiential processing interact when consumers engage with patient stories by integrating dual-process theories with the PSAM. This theoretical extension would build on the Content-Moderated Dual-Process Model (CMDPM) developed in Study 1, providing more detailed understanding of how content types activate distinct processing routes. Research questions should examine the specific conditions under which analytical versus experiential processing dominates consumer response to patient stories, potentially revealing more nuanced processing patterns that would enhance theoretical understanding of narrative persuasion.

- **Social influence extension.** Explore how interpersonal factors influence narrative effects by integrating social influence theories with the PSAM (Kaufman & Libby, 2012). This theoretical extension would address patient-caregiver dynamic limitations by examining how stories function in relational decision contexts. Research questions should investigate how patient stories influence shared decision making between patients and caregivers, potentially revealing how narrative effects differ in individual versus collaborative healthcare decisions.
- **Health Belief Model integration.** Examine how health belief structures interact with narrative effects by integrating the Health Belief Model (Rosenstock et al., 1988) with the PSAM. This theoretical extension would address healthcare context specificity limitations by examining how pre-existing health beliefs moderate narrative effects (Mueller et al., 2022). Research questions should explore how beliefs about susceptibility, severity, benefits, and barriers interact with story elements to shape consumer response, potentially revealing belief-contingent processing patterns that would enhance theoretical understanding of healthcare narrative persuasion.

These theoretical extensions would significantly advance understanding of how patient stories influence healthcare decisions, addressing boundary condition limitations while developing more comprehensive frameworks for explaining narrative effects in healthcare contexts.

Cross-Context Applications. Future research should examine how the Patient Story Advertising Model (PSAM) might apply in adjacent domains where stories

influence consequential decisions under conditions of vulnerability and uncertainty.

Several cross-context applications warrant investigation:

- **Financial decision contexts.** Apply the PSAM to retirement and investment storytelling to understand how narrative effects function in financial decision contexts that share similar credence characteristics with healthcare (Erdem & Swait, 2004). This cross-context application would test whether content-conditional effects generalize to other high-stakes credence services where consumers struggle to evaluate quality even after consumption. Research questions should examine whether the Content-Moderated Dual-Process Model (CMDPM) developed for healthcare contexts applies similarly to financial decision stories, potentially revealing domain-specific versus domain-general narrative effects.
- **Educational choice contexts.** Examine narrative effects in higher education marketing to understand how stories influence major life decisions with long-term consequences (Burns, 2015). This cross-context application would test whether narrative effects function similarly in educational choices that share timeline and significance characteristics with healthcare decisions. Research questions should investigate whether transportation's effect on reducing counter-arguing ($\beta = -0.568$) generalizes to educational stories, potentially revealing whether resistance reduction effects extend beyond healthcare to other consequential choice domains.
- **Crisis communication contexts.** Apply the PSAM to organizational crisis stories to understand how stories function when organizations must rebuild trust during uncertainty (Lee & Jahng, 2020). This cross-context application would test

whether narrative effects generalize to crisis situations that share vulnerability and uncertainty characteristics with healthcare contexts. Research questions should examine whether the healthcare attitude moderation effect observed in Study 2 extends to organizational trust contexts, potentially revealing whether narrative effects consistently show stronger impact for skeptical consumers across domains.

- **Public health contexts.** Examine narrative effects in public health campaigns to understand how stories influence preventive health behaviors where consequences remain distant and uncertain (Dillard et al., 2010). This cross-context application would test whether narrative effects function similarly for population-level versus individual health decisions. Research questions should investigate whether the Blank Slate Hypothesis developed in Study 1 applies to public health stories, potentially revealing whether character absence similarly enhances affective forecasting for distant health risks.

These cross-context applications would significantly extend the PSAM beyond healthcare advertising to other consequential decision domains, addressing boundary condition limitations while developing broader understanding of how stories influence important life choices across contexts.

Framework Evolution Pathways. The long-term evolution of the Patient Story Advertising Model (PSAM) should address emerging dimensions of healthcare communication that will shape how stories function in future contexts. Several evolution pathways warrant consideration:

- **Personalization evolution.** Examine how AI-driven story personalization influences narrative effects as healthcare brands increasingly tailor stories to

individual consumers (Zhang et al., 2024). This evolution pathway would address emerging personalization trends, providing insight into how customized stories might function differently than standardized stories. Research questions should investigate whether content-conditional effects strengthen or weaken with personalization, potentially revealing how technological advances in message customization might transform fundamental narrative processes.

- **Interactive narrative development.** Explore how consumer agency within interactive stories influences narrative effects as healthcare brands adopt more participatory storytelling approaches (Green & Jenkins, 2014). This evolution pathway would address emerging interactivity trends, providing insight into how consumer control might change traditional transportation and identification processes. Research questions should examine whether the dual-mechanism pathways identified in Study 2 function similarly in interactive versus passive narrative formats, potentially revealing how increased agency transforms narrative engagement processes.
- **Narrative integration framework.** Develop comprehensive understanding of how stories integrate with other evidence types across the healthcare decision journey (Shaffer et al., 2018a). This evolution pathway would address message integration limitations, providing insight into how stories function within ecosystems of diverse message types. Research questions should investigate optimal sequencing and integration of narrative with statistical and analytical content, potentially revealing how different evidence types might complement rather than compete in supporting informed healthcare decisions.

- **Consumer co-creation evolution.** Examine how consumer participation in story development influences narrative effects as healthcare brands increasingly incorporate user-generated content (Thomas & Grigsby, 2024). This evolution pathway would address emerging participatory trends, providing insight into how co-created stories might function differently than brand-created stories. Research questions should investigate whether transportation and identification function differently for peer-created versus brand-created stories, potentially revealing how source factors transform narrative engagement processes.

These evolution pathways would significantly extend the PSAM to address emerging healthcare communication trends, ensuring the framework remains relevant as technological and social changes transform how stories function in healthcare decision making.

Interdisciplinary Research Opportunities

The intersection of narrative persuasion and healthcare decision making creates valuable opportunities for interdisciplinary research that extends beyond traditional advertising and communication boundaries. Several collaboration directions warrant exploration:

Connections to Medical Decision-Making. Future research should integrate the Patient Story Advertising Model (PSAM) with medical decision-making frameworks to understand how stories influence clinical choices (Shaffer et al., 2018a). Several integration opportunities warrant investigation:

- **Shared decision-making integration.** Examine how patient stories influence interactions between providers and patients during collaborative treatment

planning. This interdisciplinary approach would address patient-caregiver dynamic limitations by examining how stories shape clinical conversations.

Research questions should investigate whether pre-exposure to patient stories changes information-seeking and question-asking behaviors during provider consultations, potentially revealing how stories indirectly influence treatment decisions through clinical interaction patterns.

- **Decision aid enhancement.** Test how story elements might enhance or diminish the effectiveness of formal decision aids used in clinical settings. This interdisciplinary approach would address message integration limitations by examining how stories function alongside structured decision support tools.

Research questions should examine whether transportation's effect on reducing counter-arguing ($\beta = -0.568$) influences how consumers process statistical information in decision aids, potentially revealing interaction effects between narrative and analytical components of decision support materials.

- **Decision quality assessment.** Evaluate how exposure to different story elements influences objective and subjective decision quality measures used in medical decision-making research. This interdisciplinary approach would address measurement limitations by examining behavioral outcomes beyond attitudes and intentions. Research questions should investigate whether content-specific effects identified in Study 1 differentially influence value concordance, decision satisfaction, and decisional regret, potentially revealing how storytelling approaches might enhance decision quality across multiple dimensions.

- **Bias mitigation testing.** Examine whether storytelling approaches might reduce common medical decision-making biases, including availability bias, affect heuristic, and status quo bias. This interdisciplinary approach would address ethical implications by testing whether stories might enhance rather than undermine informed choice. Research questions should investigate whether experience content without character presence reduces impact bias in medical decision making, potentially revealing how the Blank Slate Hypothesis might inform bias-reduction approaches for clinical decisions.

These interdisciplinary connections would significantly enhance understanding of how patient stories influence healthcare decisions, addressing measurement limitations while developing more comprehensive frameworks for explaining narrative effects in clinical contexts.

Implications for Health Communication. Future research should integrate the Patient Story Advertising Model (PSAM) with health communication frameworks to understand how stories function within broader health behavior models. Several integration opportunities warrant investigation:

- **Health Belief Model integration.** Examine how story elements influence key health belief constructs including perceived susceptibility, severity, benefits, and barriers. This interdisciplinary approach would address healthcare context specificity limitations by examining how stories shape fundamental health perceptions. Research questions should investigate whether content-specific effects identified in Study 1 differentially influence specific health belief

dimensions, potentially revealing how targeted storytelling approaches might address specific belief barriers to health behavior change.

- **Risk communication enhancement.** Test how story elements influence risk perception accuracy, particularly for complex statistical information about treatment outcomes. This interdisciplinary approach would address ethical implications by examining how stories might enhance or diminish risk comprehension. Research questions should investigate whether transportation's effect on reducing counter-arguing ($\beta = -0.568$) simultaneously reduces critical processing of risk information, potentially revealing tensions between narrative engagement and risk comprehension that would inform ethical communication guidelines.
- **Health literacy improvement.** Examine whether storytelling approaches might enhance health literacy by making complex medical information more accessible and engaging. This interdisciplinary approach would address vulnerable population considerations by testing whether stories might reduce disparities stemming from literacy barriers. Research questions should investigate whether content-specific processing routes identified in Study 1 function differently across health literacy levels, potentially revealing how storytelling approaches might be adapted to diverse literacy needs.
- **Message design principles.** Develop health communication guidelines based on empirical findings about content, character, and plot effects on consumer response (Cappella & Li, 2023). This interdisciplinary approach would translate the PSAM into practical design principles for health communicators. Research questions

should investigate how theoretical insights about dual-mechanism pathways might inform systematic message design approaches that balance engagement with comprehension, potentially establishing evidence-based guidelines for health story development.

These interdisciplinary connections would significantly enhance understanding of how patient stories influence health behavior more broadly, addressing healthcare context specificity limitations while developing more comprehensive frameworks for explaining narrative effects across health communication contexts.

Applications in Healthcare Marketing Ethics. Future research should integrate the Patient Story Advertising Model (PSAM) with healthcare marketing ethics frameworks to understand how storytelling approaches might balance persuasive effectiveness with ethical responsibility. Several integration opportunities warrant investigation:

- **Ethical enhancement framework.** Develop and test approaches for using story elements to enhance rather than undermine informed healthcare decision making. This interdisciplinary approach would address ethical implications by examining how stories might simultaneously achieve persuasive objectives and support informed choice. Research questions should investigate whether specific content and structure configurations enhance decisional quality while maintaining persuasive effectiveness, potentially establishing best practices that align organizational objectives with consumer welfare.
- **Vulnerability assessment models.** Examine how consumer vulnerability factors interact with narrative effects to identify conditions requiring enhanced ethical

standards. This interdisciplinary approach would address vulnerable population considerations by developing more nuanced understanding of vulnerability dimensions. Research questions should investigate whether factors like health literacy, decision urgency, and emotional state moderate narrative effects, potentially revealing vulnerability-specific patterns that would inform targeted ethical guidelines.

- **Regulatory framework development.** Test alternative oversight approaches to determine which regulatory mechanisms effectively balance narrative benefits with consumer protection. This interdisciplinary approach would address regulatory implications by providing empirical evidence to inform policy development. Research questions should investigate whether content-conditional oversight approaches effectively address ethical concerns without eliminating narrative benefits, potentially informing evidence-based regulatory guidelines that acknowledge the legitimate role of patient stories in healthcare communication.
- **Corporate responsibility guidelines:** Develop empirically grounded standards for responsible narrative practices based on experimental testing of ethical implications. This interdisciplinary approach would translate ethical considerations into actionable guidelines for healthcare brands. Research questions should investigate whether voluntary standards effectively address ethical concerns across organizational contexts, potentially establishing industry-wide best practices that enhance corporate responsibility while preserving narrative communication benefits.

These interdisciplinary connections would significantly enhance understanding of how patient stories might balance persuasive effectiveness with ethical responsibility, addressing regulatory implications while developing more comprehensive frameworks for healthcare marketing ethics.

Conclusion

The limitations identified in this analysis provide important context for interpreting and applying the findings from both studies while suggesting productive directions for future research. While effect size, generalizability, and measurement considerations constrain the current findings, they also reveal strategic pathways for advancing understanding of how patient stories influence consumer healthcare decisions.

The framework boundary conditions clarify when and where the Patient Story Advertising Model (PSAM) applies while identifying circumstances where different theoretical approaches might be more appropriate. Short-term research directions focus on immediate model validation and mechanism testing, while long-term agenda items address more fundamental questions about theoretical integration and cross-context application. Interdisciplinary research opportunities highlight valuable connections to medical decision making, health communication, and healthcare marketing ethics that would significantly extend understanding beyond traditional advertising boundaries.

These limitations and future directions collectively transform understanding of how patient stories influence vulnerable healthcare consumers in high-stakes decision contexts, addressing what Schwartz and Woloshin (2016) identify as healthcare brands' enhanced obligations to public trust when crafting stories that influence decisions of highly vulnerable consumers facing life-altering treatment choices. By acknowledging

both the limitations of current evidence and the promising pathways for future research, this analysis supports more comprehensive understanding of patient story advertising while establishing a productive research agenda for advancing both theoretical understanding and practical application.

Conclusion

This dissertation addressed the critical question of how patient story advertising influences vulnerable healthcare consumers' decision making in the high-stakes context of cancer care. Through two complementary experiments, this research systematically examined how intrinsic features of cancer patient stories—content (what information they convey), characters (how patients are portrayed), and plot structure (how the story unfolds)—influence consumer perceptions and decision making. By methodically deconstructing and then reconstructing patient stories, this research provides both theoretical understanding and practical guidance for developing patient stories that effectively engage consumers while supporting informed decision making. This conclusion synthesizes the key theoretical contributions, summarizes practical applications, and offers final reflections on the significance of these findings for healthcare communication.

Theoretical Contributions

This dissertation makes significant theoretical contributions to both narrative persuasion theory and healthcare services advertising research. First and most importantly, it advances patient story advertising research through systematic experimental testing of intrinsic story features to better understand how they work independently and together to influence persuasive outcomes. It is the first study to

experimentally examine cancer patient stories based on their description in the literature as carefully crafted brand stories that use specific content, character presentations, and plot structures to achieve marketing objectives (Martel et al., 2022; McLeod, 2022, 2023; Willett, 2024). This research employed structural equation modeling to examine the complex relationships between story features, consumer responses, psychological mechanisms, and brand outcomes—enabling simultaneous testing of direct and indirect effects that is missing from current research.

The Patient Story Advertising Model (PSAM) developed through this research positions content type as the fundamental moderator that determines which processing routes are activated, with plot structure functioning as an integration mechanism that organizes these routes in complete patient stories. This content-first, structure-second approach transforms theoretical understanding by challenging universal process assumptions and suggesting a more nuanced, content-specific approach to narrative persuasion. The model identifies five core theoretical propositions: 1) Different content types activate distinct processing routes, and content type fundamentally moderates how structural elements function; 2) Transportation and identification function as distinct mechanisms with specialized persuasive functions—transportation primarily reduces resistance while identification primarily enhances emotional engagement; 3) Content, character, and plot function as complementary rather than purely synergistic elements, with different configurations achieving similar outcomes through different pathways; 4) Narrative effects are moderated by healthcare attitudes, with storytelling approaches particularly effective for individuals with less positive healthcare attitudes; and 5) Effective patient stories require strategic alignment of content, character, and plot

elements based on specific communication objectives rather than universal “best practices.”

These propositions challenge and extend both the Extended Transportation-Imagery Model (ETIM; van Laer et al., 2014) and the Narrative Immersion Model (NIM; Shaffer et al., 2018a) in significant ways. While the ETIM correctly identifies storyteller antecedents that enhance narrative transportation, it fails to account for content-specific processing routes or the complementary rather than purely synergistic relationships between story elements. Similarly, the NIM correctly identifies content types as critical determinants of narrative effects but does not fully explain how structural elements organize and balance multiple content types in complete stories. The PSAM integrates these perspectives by positioning content type as the primary determinant of which processing routes are activated, with structural elements determining how these routes manifest in integrated patient stories.

The finding that transportation and identification function as distinct mechanisms with different downstream consequences—transportation primarily reducing resistance while identification primarily enhancing emotional engagement—challenges the hierarchical progression of narrative engagement proposed in the NIM (Shaffer et al., 2018a). Rather than positioning transportation as a deeper level of engagement than identification, the PSAM suggests these processes serve distinct functions in narrative persuasion. This dual-mechanism perspective reconciles seemingly contradictory findings across studies, explaining why identification showed stronger direct effects on ad effectiveness in Study 1 while transportation more strongly reduced resistance processes in Study 2. The parallel rather than sequential relationship between these mechanisms

transforms understanding of how stories influence consumers by specifying distinct roles for different engagement processes.

The discovery that healthcare attitudes significantly moderate narrative effects, with stronger effects observed for individuals with less positive healthcare attitudes, challenges the assumption that narrative persuasion works most effectively for audiences already positively disposed toward the message domain. This finding extends the visceral congruency framework (Freling et al., 2020) by demonstrating that in healthcare contexts, storytelling approaches may be particularly valuable for reaching skeptical consumers rather than reinforcing existing positive attitudes. This insight transforms understanding of when and for whom patient stories might be most effective, suggesting they may serve as bridges to engage healthcare-skeptical consumers who might otherwise resist traditional marketing approaches.

Practical Applications

The theoretical insights from this dissertation translate into actionable guidance for healthcare communicators seeking to develop more effective and responsible patient stories. Rather than offering universal “best practices” that may not acknowledge content-specific effects, this evidence-based approach emphasizes strategic optimization based on specific communication objectives. The Strategic Decision Framework provides guidance for selecting optimal story elements based on five primary communication objectives: enhancing brand beliefs, facilitating affective forecasting, reducing resistance among skeptical consumers, creating emotional engagement, and maximizing overall ad effectiveness. For each objective, the framework specifies optimal configurations of

content emphasis, character presence, and plot structure based on the route-specific processing patterns identified in both studies.

Content selection and emphasis guidelines provide specific strategies for implementing different content types and approaches for integrating them effectively. Physical outcome content functioned as a cognitive anchor that enhanced beliefs across domains, making it particularly valuable for establishing credibility and enhancing overall ad effectiveness. Psychological outcome content required strategic presentation to avoid potential skepticism, with careful integration alongside more concrete content types. Experience content showed particular strength in facilitating affective forecasting, helping consumers envision what treatment might feel like, but created a tension between observational learning (enhanced through character presence) and self-projection (enhanced through character absence). These content-specific patterns translate into practical guidelines for content selection and integration based on specific communication objectives.

Plot structure implementation strategies provide specific techniques for developing high-narrativity elements and frameworks for implementing effective plot structures. Clear temporal sequence, explicit causal links, coherent plot resolution, and narrative integration represent evidence-based approaches for enhancing plot structure effectiveness. Implementation frameworks such as journey structure, problem-intervention-resolution, milestone structure, and contrast structure offer practical approaches for developing high-narrativity plots that enhance both transportation and message acceptance. Character development and integration approaches provide evidence-based strategies for character portrayal and integration with other story

elements, acknowledging the content-conditional character effects observed in Study 1 and the consistent enhancement of narrative engagement observed in Study 2.

Audience-specific considerations provide guidelines for adapting stories to different audience segments, particularly those with varying healthcare attitudes. The finding that narrative effects were stronger for individuals with less positive healthcare attitudes suggests storytelling approaches may be particularly valuable for reaching healthcare-skeptical consumers. This insight translates into strategies for attitude-based segmentation and audience-specific adaptation, with more immersive, transportation-enhancing stories for skeptical consumers and more direct, information-focused approaches for those with positive healthcare attitudes. Measurement and testing approaches translate experimental methods into practical tools for assessing and refining patient stories, while implementation frameworks guide decisions about strategic element selection and resource allocation.

Ethical Implications

The empirical findings from this dissertation raise important ethical considerations for patient story advertising in healthcare contexts. While patient stories can provide hope and information to potential patients, the demonstrated influence of specific story features on consumer decision making creates enhanced ethical responsibilities for healthcare brands. The tension between persuasion and informed decision making takes on particular significance given the finding that transportation significantly reduced both counter-arguing and persuasion knowledge activation, suggesting immersive stories may simultaneously enhance persuasion while potentially diminishing critical evaluation of message claims. This tension requires careful ethical

consideration, particularly in high-stakes contexts like cancer treatment where decisions carry profound consequences.

The Ethical Enhancement Framework developed in this dissertation suggests approaches for using story elements to enhance rather than undermine informed choice, including balanced content integration, strategic character implementation, transparent plot structure, and tailored enhancement approaches based on audience characteristics. These approaches leverage story features to facilitate both emotional engagement and critical evaluation, addressing what Schenker et al. (2014) identify as a central ethical concern in healthcare advertising. The findings also raise important questions about transparency and representation in patient story advertising, particularly given content analyses documenting concerning patterns where patient stories disproportionately feature exceptional rather than typical outcomes (Berry et al., 2020; McLeod, 2022) and predominantly showcase middle-class, white, middle-aged patients as central characters (Martel et al., 2022).

The finding that narrative effects were stronger for individuals with less positive healthcare attitudes creates particular ethical obligations for vulnerable population protection. Differential vulnerability to narrative persuasion raises important questions, particularly for populations already experiencing healthcare disparities or facing high-stakes decisions with limited information. Enhanced balance requirements for high-stakes decisions, decisional stage adaptation, educational support integration, and supportive consent processes represent ethical approaches for addressing these concerns while preserving narrative benefits. The findings also suggest potential frameworks for enhancing regulatory oversight based on empirical evidence about how stories influence

consumers, including content balance requirements, representation standards, decision-appropriate oversight, and mechanism-based disclosure.

Final Reflections

This dissertation's systematic investigation of how patient story features influence consumer response transforms understanding of narrative persuasion in healthcare contexts while providing evidence-based guidelines for developing more effective and responsible patient stories. By methodically deconstructing patient stories into their component elements in Study 1 and then examining how these elements function in integrated stories in Study 2, this research provides a comprehensive framework for understanding how content type, character presence, and plot structure influence consumer healthcare decisions. The Content-Moderated Dual-Process Model (CMDPM) and the Patient Story Advertising Model (PSAM) developed through this research advance both theoretical understanding and practical application, addressing significant gaps in current content-focused and structure-focused approaches to narrative persuasion.

The findings reveal more complex patterns than predicted by either the ETIM (van Laer et al., 2014) or the NIM (Shaffer et al., 2018a) alone, suggesting that content type fundamentally moderates how structural elements function, transportation and identification serve distinct rather than sequential functions, story elements function as complementary rather than purely synergistic factors, and healthcare attitudes significantly moderate narrative effects. These insights transform understanding of how patient stories influence vulnerable healthcare consumers in high-stakes decision contexts, addressing Berry et al.'s (2020) call for systematic experimental investigation of how patient story features influence consumer healthcare decisions.

The practical applications of this research provide healthcare communicators with evidence-based guidelines for developing more effective patient stories, while the ethical implications suggest approaches for balancing persuasive effectiveness with support for informed decision making. Rather than positioning narrative persuasion as inherently problematic, this analysis acknowledges both the legitimate role of patient stories in healthcare communication and the heightened ethical obligations they create—particularly for academic health centers that operate at the intersection of patient care, medical education, and research (Schwartz & Woloshin, 2016).

As van Laer et al. (2014, p. 798) observe, “Given the implications of stories for the narrative persuasion of consumers, nothing is less innocent than a story.” This observation takes on enhanced significance in healthcare contexts, where patient stories shape consequential decisions rather than merely influencing product preferences. This dissertation’s systematic examination of how content, character, and plot influence consumer response offers a framework for understanding both the persuasive power and ethical implications of these stories. By acknowledging both the benefits and challenges of narrative persuasion in healthcare, this research supports more responsible approaches to patient story advertising that balance organizational communication objectives with enhanced obligations to vulnerable consumers. Through evidence-based implementation grounded in empirical research, healthcare communicators can develop patient stories that effectively engage consumers while supporting informed healthcare decision making.

TABLES

Table 1. Hypotheses and results for Study 1 and Study 2.

Study 1 Hypotheses

Hypothesis	Factor	Description	Results
H1a	Content Type	Physical outcome content will have the strongest effect on brand effectiveness belief compared to psychological content, experience content, and control.	SUPPORTED: Physical vs. Psychological: diff = 0.162, SE = 0.074, z = 2.196, p = 0.028 (effect size: small, std. β = 0.067); Physical vs. Experience: diff = 0.166, SE = 0.072, z = 2.293, p = 0.022 (effect size: small, std. β = 0.068)
H1b	Content Type	Psychological outcome content will have the strongest effect on brand meaning belief compared to physical content, experience content, and control.	NOT SUPPORTED (Contrary finding): Psychological vs. Physical: diff = -0.174, SE = 0.076, z = -2.296, p = 0.022 (effect size: small, std. β = -0.069); physical content had stronger effects

H1c	Content Type	Experience content will have the strongest effect on brand experience belief compared to physical content, psychological content, and control.	NOT SUPPORTED (Contrary finding): Experience vs. Physical: diff = -0.323, SE = 0.075, z = -4.286, p < 0.001 (effect size: small, std. β = -0.131); Experience vs. Psychological: diff = -0.180, SE = 0.080, z = -2.251, p = 0.024 (effect size: small, std. β = -0.073)
H1d	Content Type	Experience content will have the strongest effect on affective forecasting compared to physical content and psychological content.	SUPPORTED: Significant positive effects of experience content on forecasting compared to other content types (effect size: small)
H1e	Content Type	Physical content will have stronger effects on brand beliefs than control.	NOT SUPPORTED: Condition 1: β = -0.128, SE = 0.067, p = 0.057 (effect size: negligible, std. β = -0.045); Condition 2: β = -0.141, SE = 0.071, p = 0.047 (effect size: negligible, std. β = -0.050)
H1f	Content Type	Psychological content will have stronger effects on brand beliefs than control.	NOT SUPPORTED: Condition 3: β = -0.152, SE = 0.072, p = 0.034 (effect size: negligible, std. β = -0.054); Condition 4: β = -0.083, SE = 0.071, p = 0.248 (effect size: negligible, std. β = -0.029)

H1g	Content Type	Experience content will have stronger effects on brand beliefs than control.	NOT SUPPORTED: Condition 5: $\beta = -0.104$, SE = 0.069, p = 0.132 (effect size: negligible, std. $\beta = -0.037$); Condition 6: $\beta = -0.239$, SE = 0.079, p = 0.002 (effect size: small, std. $\beta = -0.084$)
H1h	Content Type	Physical content will have stronger effects on ad effectiveness than control.	SUPPORTED: Condition 1: $\beta = 0.196$, SE = 0.071, p = 0.006 (effect size: small, std. $\beta = 0.095$); Condition 2: $\beta = 0.153$, SE = 0.074, p = 0.038 (effect size: small, std. $\beta = 0.074$); Overall R ² = 0.015
H1i	Content Type	Psychological content will have stronger effects on ad effectiveness than control.	NOT SUPPORTED: Condition 3: $\beta = -0.050$, SE = 0.072, p = 0.486 (effect size: negligible, std. $\beta = -0.025$); Condition 4: $\beta = 0.043$, SE = 0.076, p = 0.575 (effect size: negligible, std. $\beta = 0.021$)
H1j	Content Type	Experience content will have stronger effects on ad effectiveness than control.	NOT SUPPORTED: Condition 5: $\beta = 0.040$, SE = 0.074, p = 0.585 (effect size: negligible, std. $\beta = 0.020$); Condition 6: $\beta = -0.048$, SE = 0.076, p = 0.528 (effect size: negligible, std. $\beta = -0.023$)

H2a	Character Presence	Character presence (vs absence) will lead to increased transportation.	SUPPORTED: $\beta = 0.201$, SE = 0.052, $p < 0.001$ (effect size: small, std. $\beta = 0.099$)
H2b	Character Presence	Character presence (vs absence) will lead to increased identification.	MARGINALLY SUPPORTED: $\beta = 0.119$, SE = 0.061, $p = 0.053$ (effect size: negligible, std. $\beta = 0.049$)
H2c	Character Presence	Character presence (vs absence) will lead to increased perceived similarity.	SUPPORTED: $\beta = 0.203$, SE = 0.069, $p = 0.003$ (effect size: small, std. $\beta = 0.084$)
H2d	Character Presence	Character presence (vs absence) will lead to increased emotional responses.	NOT SUPPORTED: $\beta = 0.111$, SE = 0.064, $p = 0.082$ (effect size: negligible, std. $\beta = 0.048$)
H2e	Character Presence	Character presence will lead to increased ad effectiveness (vs. control).	NOT SUPPORTED: $\beta = -0.004$, SE = 0.038, $p = 0.912$ (effect size: negligible, std. $\beta = -0.003$)
H2f	Character Presence	Character absence will lead to increased ad effectiveness (vs. control).	PARTIALLY SUPPORTED: Only for physical content conditions (1 and 2) with small effect sizes
H3a	Transportation Mediation	The effect of character presence (vs absence) on ad effectiveness will be mediated by transportation.	NOT SUPPORTED: Indirect effect: $\beta = 0.007$, SE = 0.009, $p = 0.415$ (effect size: negligible, std. $\beta = 0.005$)

H3b	Identification Mediation	The effect of character presence (vs absence) on ad effectiveness will be mediated by identification.	NOT SUPPORTED: Indirect effect: $\beta = 0.010$, SE = 0.007, p = 0.151 (effect size: negligible, std. $\beta = 0.007$); Though identification directly affected ad effectiveness: $\beta = 0.087$, SE = 0.035, p = 0.014 (effect size: small, std. $\beta = 0.154$)
H4	Eudaimonic Symbolism	The effect of psychological outcome content on attitude toward the brand will be mediated by eudaimonic symbolism.	NOT SUPPORTED: Indirect effect: $\beta = -0.002$, SE = 0.045, p = 0.956 (effect size: negligible); Though eudaimonic symbolism directly affected brand attitudes: $\beta = 0.506$, SE = 0.085, p < 0.001 (effect size: large, R ² = 0.154)
H5a	Content Type × Character Presence	Physical content with character present will have stronger effects on brand effectiveness belief compared to physical content with character absent and compared to control.	NOT SUPPORTED: Cond1 vs. Cond2: diff = 0.118, SE = 0.094, z = 1.255, p = 0.209; Cond1 vs. Control: diff = 0.049, SE = 0.097, z = 0.504, p = 0.614; R ² = 0.0023 (negligible effect)

H5b	Content Type × Character Presence	Psychological content with character present will have stronger effects on brand meaning belief compared to psychological content with character absent and compared to control.	NOT SUPPORTED (Contrary finding): Cond3 vs. Cond4: diff = -0.200, SE = 0.113, z = -1.772, p = 0.076; Cond3 vs. Control: diff = -0.214, SE = 0.108, z = -1.971, p = 0.049; R ² = 0.0072 (negligible effect)
H5c	Content Type × Character Presence	Experience content with character present will have stronger effects on brand experience belief compared to experience content with character absent and compared to control.	MARGINALLY SUPPORTED for character presence vs. absence comparison only: Cond5 vs. Cond6: diff = 0.192, SE = 0.115, z = 1.676, p = 0.094; Cond5 vs. Control: diff = -0.133, SE = 0.106, z = -1.251, p = 0.211; R ² = 0.0133 (small effect)
H5d	Content Type × Character Presence	Experience content with character present will have stronger effects on affective forecasting compared to experience content with character absent.	NOT SUPPORTED (Significant effect in opposite direction): $\beta = -0.511$, SE = 0.146, t = -3.492, p < 0.001; R ² = 0.0277 (small effect)
H5e	Content Type × Character Presence	Physical content with character present will have stronger effects on brand beliefs compared to physical content with character absent and compared to control.	NOT SUPPORTED: Cond1 vs. Cond2: diff = 0.061, SE = 0.091, z = 0.675, p = 0.500; Cond1 vs. Control: diff = 0.067, SE = 0.093, z = 0.724, p = 0.469; R ² = 0.0011 (negligible effect)

H5f	Content Type × Character Presence	Psychological content with character present will have stronger effects on brand beliefs compared to psychological content with character absent and compared to control.	NOT SUPPORTED (Contrary finding): Cond3 vs. Cond4: diff = -0.167, SE = 0.106, z = -1.571, p = 0.116; Cond3 vs. Control: diff = -0.204, SE = 0.102, z = -1.991, p = 0.046; R ² = 0.0073 (negligible effect)
H5g	Content Type × Character Presence	Experience content with character present will have stronger effects on brand beliefs compared to experience content with character absent and compared to control.	PARTIALLY SUPPORTED: Cond5 vs. Cond6: diff = 0.218, SE = 0.103, z = 2.122, p = 0.034 (effect size: small, std. β = 0.101); Cond5 vs. Control: diff = -0.060, SE = 0.096, z = -0.620, p = 0.535; R ² = 0.0139 (small effect)

Study 2 Hypotheses

Hypothesis	Factor	Description	Results
H6a	Plot Structure	High (vs. low) narrativity will lead to increased transportation.	SUPPORTED: Significant positive effect of high narrativity on transportation ($\beta = 0.180$, SE = 0.073, $p = 0.014$, effect size: small, std. $\beta = 0.093$)
H6b	Plot Structure	High (vs. low) narrativity will lead to reduced counter-arguing.	PARTIALLY SUPPORTED: Marginally significant negative effect ($\beta = -0.170$, SE = 0.093, $p = 0.068$, effect size: negligible, std. $\beta = -0.066$)
H6c	Plot Structure	High (vs. low) narrativity will lead to increased emotional responses.	PARTIALLY SUPPORTED: Marginally significant positive effect ($\beta = 0.135$, SE = 0.072, $p = 0.060$, effect size: negligible, std. $\beta = 0.069$)
H6d	Plot Structure	High (vs. low) narrativity will lead to increased perceived message credibility.	NOT SUPPORTED: Non-significant effect ($\beta = 0.055$, SE = 0.041, $p = 0.178$, effect size: negligible, std. $\beta = 0.050$)
H6e	Plot Structure	High narrativity will lead to increased ad effectiveness (vs. control).	SUPPORTED: Significant positive effect ($\beta = 0.226$, SE = 0.062, $p < 0.001$, effect size: small, std. $\beta = 0.166$); $R^2 = 0.015$

H6f	Plot Structure	Low narrativity will lead to increased ad effectiveness (vs. control).	SUPPORTED: Significant positive effect ($\beta = 0.154$, SE = 0.063, p = 0.015, effect size: small, std. β = 0.109); R ² = 0.015
H7a	Character Presence	Character presence (vs absence) will lead to increased transportation.	SUPPORTED: Significant positive effect ($\beta = 0.159$, SE = 0.034, p < 0.001, effect size: small, std. β = 0.159)
H7b	Character Presence	Character presence (vs absence) will lead to increased identification.	SUPPORTED: Significant positive effect ($\beta = 0.151$, SE = 0.035, p < 0.001, effect size: small, std. β = 0.151)
H7c	Character Presence	Character presence (vs absence) will lead to increased perceived similarity.	SUPPORTED: Significant positive effect ($\beta = 0.167$, SE = 0.034, p < 0.001, effect size: small, std. β = 0.167)
H7d	Character Presence	Character presence (vs absence) will lead to increased emotional responses.	SUPPORTED: Significant positive effect ($\beta = 0.146$, SE = 0.034, p < 0.001, effect size: small, std. β = 0.146)
H7e	Character Presence	Character presence will lead to increased ad effectiveness (vs. control).	SUPPORTED: Significant positive effect ($\beta = 0.223$, SE = 0.063, p < 0.001, effect size: small, std. β = 0.157); R ² = 0.013
H7f	Character Presence	Character absence will lead to increased ad effectiveness (vs. control).	SUPPORTED: Significant positive effect ($\beta = 0.172$, SE = 0.062, p = 0.005, effect size: small, std. β = 0.126); R ² = 0.013

H8a	Transportation Mediation	The effect of character presence (vs absence) on ad effectiveness will be mediated by transportation.	SUPPORTED: Significant indirect effect through transportation ($\beta = 0.116$, SE = 0.028, $p < 0.001$, 95% CI [0.061, 0.170]); Effect size: Transportation → Ad Effectiveness path ($\beta = 0.540$, large effect); R^2 for Ad Effectiveness = 0.286
H8b	Identification Mediation	The effect of character presence (vs absence) on ad effectiveness will be mediated by identification.	SUPPORTED: Significant indirect effect through identification ($\beta = 0.104$, SE = 0.028, $p < 0.001$, 95% CI [0.049, 0.160]); Effect size: Identification → Ad Effectiveness path ($\beta = 0.521$, large effect); R^2 for Ad Effectiveness = 0.267
H9a	Plot Structure × Character Presence	Plot structure and character presence will interact such that stories with high narrativity and character present will produce the highest levels of transportation.	PARTIALLY SUPPORTED: Cond1 vs. Cond2: $\beta = 0.092$, $p = 0.005$ (negligible effect); Cond1 vs. Cond3: $\beta = 0.056$, $p = 0.199$ (negligible effect); Cond1 vs. Cond4: $\beta = 0.237$, $p < 0.001$ (small effect); $R^2 = 0.040$

H9b	Plot Structure × Character Presence	Plot structure and character presence will interact such that stories with high narrativity and character present will produce the strongest ad effectiveness.	PARTIALLY SUPPORTED: Cond1 vs. Cond2: $\beta = 0.019$, $p = 0.515$ (negligible effect); Cond1 vs. Cond3: $\beta = 0.037$, $p = 0.402$ (negligible effect); Cond1 vs. Cond4: $\beta = 0.084$, $p = 0.060$ (negligible effect); Cond1 vs. Control: $\beta = 0.251$, $p < 0.001$ (small effect); $R^2 = 0.016$
H10a	Moderator	Familiarity will moderate the positive effects of high narrativity and/or character presence on transportation.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Familiarity: $\beta = -0.014$, $p = 0.735$; Exemplar Present × Familiarity: $\beta = 0.059$, $p = 0.145$)
H10b	Moderator	Attention will moderate the positive effects of high narrativity and/or character presence on transportation.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Attention: $\beta = -0.059$, $p = 0.248$; Exemplar Present × Attention: $\beta = -0.038$, $p = 0.406$)
H10c	Moderator	Transportability will moderate the positive effects of high narrativity and/or character presence on transportation.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Transportability: $\beta = -0.010$, $p = 0.815$; Exemplar Present × Transportability: $\beta = 0.019$, $p = 0.635$)

H10d	Moderator	Trait empathy will moderate the positive effects of high narrativity and/or character presence on transportation.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Trait Empathy: $\beta = -0.030$, $p = 0.483$; Exemplar Present × Trait Empathy: $\beta = -0.010$, $p = 0.806$)
H10e	Moderator	Familiarity will moderate the positive effects of high narrativity and/or character presence on identification.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Familiarity: $\beta = 0.017$, $p = 0.674$; Exemplar Present × Familiarity: $\beta = 0.046$, $p = 0.246$)
H10f	Moderator	Attention will moderate the positive effects of high narrativity and/or character presence on identification.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Attention: $\beta = -0.010$, $p = 0.842$; Exemplar Present × Attention: $\beta = -0.030$, $p = 0.502$)
H10g	Moderator	Transportability will moderate the positive effects of high narrativity and/or character presence on identification.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Transportability: $\beta = 0.021$, $p = 0.619$; Exemplar Present × Transportability: $\beta = 0.004$, $p = 0.924$)

H10h	Moderator	Trait empathy will moderate the positive effects of high narrativity and/or character presence on identification.	NOT SUPPORTED: No significant moderation effects (High Narrativity × Trait Empathy: $\beta = -0.045$, $p = 0.228$; Exemplar Present × Trait Empathy: $\beta = -0.001$, $p = 0.970$)
H11a	Threat Severity	Threat severity will increase the positive effects of high narrativity on transportation.	NOT SUPPORTED: No significant moderation effect (High Narrativity × Threat Severity: $\beta = -0.023$, $p = 0.589$)
H11b	Threat Severity	Threat severity will increase the positive effects of character presence on transportation.	NOT SUPPORTED: No significant moderation effect (Exemplar Present × Threat Severity: $\beta = 0.002$, $p = 0.960$)
H11c	Threat Severity	Threat severity will increase the positive effects of high narrativity on identification.	NOT SUPPORTED: No significant moderation effect (High Narrativity × Threat Severity: $\beta = 0.001$, $p = 0.988$)
H11d	Threat Severity	Threat severity will increase the positive effects of character presence on identification.	NOT SUPPORTED: No significant moderation effect (Exemplar Present × Threat Severity: $\beta = -0.046$, $p = 0.262$)
H12a	Resistance Processes	Transportation will decrease counter-arguing.	SUPPORTED: Significant negative effect ($\beta = -0.755$, $SE = 0.217$, $p < 0.001$, effect size: large, $std.\beta = -0.568$); R^2 for counter-arguing = 0.131

H12b	Resistance Processes	Transportation will decrease persuasion knowledge activation.	SUPPORTED: Significant negative effect ($\beta = -0.424$, SE = 0.213, p = 0.047, effect size: small, std. β = -0.286); R ² for persuasion knowledge = 0.038
H12c	Resistance Processes	Identification will decrease counter-arguing.	NOT SUPPORTED: Non-significant effect in wrong direction ($\beta = 0.262$, SE = 0.171, p = 0.126, effect size: small, std. β = 0.242)
H12d	Resistance Processes	Identification will decrease persuasion knowledge activation.	NOT SUPPORTED: Non-significant effect in wrong direction ($\beta = 0.126$, SE = 0.173, p = 0.466, effect size: small, std. β = 0.104)
H12e	Resistance Processes	Identification will have a stronger negative effect on counter-arguing than transportation.	NOT SUPPORTED: Effect in opposite direction ($\beta = 1.017$, SE = 0.384, p = 0.008, effect size: large, std. β = 0.810)
H12f	Resistance Processes	Identification will have a stronger negative effect on persuasion knowledge activation than transportation.	NOT SUPPORTED: Non-significant difference ($\beta = 0.550$, SE = 0.382, p = 0.150, effect size: medium, std. β = 0.391)
H12g	Resistance Processes	High narrativity will reduce counter-arguing more than low narrativity.	NOT SUPPORTED: Marginally significant effect ($\beta = -0.065$, SE = 0.093, p = 0.071, effect size: negligible, std. β = -0.065)

H12h	Resistance Processes	High narrativity will reduce persuasion knowledge activation more than low narrativity.	NOT SUPPORTED: Non-significant effect ($\beta = -0.031$, SE = 0.102, p = 0.375, effect size: negligible, std. $\beta = -0.031$)
H12i	Resistance Processes	The combination of high narrativity and character presence will reduce counter-arguing more than the combination of low narrativity and character presence.	NOT SUPPORTED: Marginally significant effect in opposite direction ($\beta = 0.118$, SE = 0.189, p = 0.057, effect size: small, std. $\beta = 0.118$)
H13a	Outcomes	Transportation will increase emotional responses.	SUPPORTED: Significant positive effect ($\beta = 0.273$, SE = 0.138, p = 0.047, effect size: small, std. $\beta = 0.269$); R ² for emotional responses = 0.613
H13b	Outcomes	Identification will increase emotional responses.	SUPPORTED: Significant positive effect ($\beta = 0.441$, SE = 0.116, p < 0.001, effect size: large, std. $\beta = 0.530$); R ² for emotional responses = 0.613
H13c	Outcomes	Transportation will increase ad effectiveness.	SUPPORTED: Significant positive effect ($\beta = 0.217$, SE = 0.097, p = 0.024, effect size: medium, std. $\beta = 0.309$); R ² for ad effectiveness = 0.293
H13d	Outcomes	Identification will increase ad effectiveness.	NOT SUPPORTED: Non-significant effect ($\beta = 0.140$, SE = 0.080, p = 0.080, effect size: small, std. $\beta = 0.245$)

H13e	Outcomes	Identification will have a stronger positive effect on ad effectiveness than transportation.	NOT SUPPORTED: Non-significant difference ($\beta = -0.077$, SE = 0.174, p = 0.659)
H14a	Healthcare Involvement	The relationship between transportation and ad effectiveness will be moderated by attitudes toward healthcare.	SUPPORTED: Significant negative moderation effect ($\beta = -0.066$, SE = 0.016, p < 0.001, effect size: small, std. $\beta = -0.145$); R ² for ad effectiveness = 0.462
H14b	Healthcare Involvement	The relationship between transportation and ad effectiveness will be moderated by healthcare access.	NOT SUPPORTED: Non-significant moderation effect ($\beta = -0.015$, SE = 0.022, p = 0.497, effect size: negligible, std. $\beta = -0.033$); R ² for ad effectiveness = 0.351
H14c	Healthcare Involvement	The relationship between transportation and ad effectiveness will be moderated by provider status.	SUPPORTED: Significant moderation effect for 'Other provider status'; R ² for ad effectiveness = 0.297
H14d	Healthcare Involvement	The relationship between transportation and ad effectiveness will be moderated by insurance status.	NOT SUPPORTED: No significant moderation effects; R ² for ad effectiveness = 0.316
H14e	Healthcare Involvement	The relationship between transportation and ad effectiveness will be moderated by health status.	NOT SUPPORTED: Non-significant moderation effect; R ² for ad effectiveness = 0.332

H14f	Healthcare Involvement	The relationship between transportation and ad effectiveness will be moderated by quality of life.	NOT SUPPORTED: Non-significant moderation effect; R^2 for ad effectiveness = 0.343
H14g	Healthcare Involvement	The relationship between identification and ad effectiveness will be moderated by attitudes toward healthcare.	SUPPORTED: Significant negative moderation effect ($\beta = -0.057$, SE = 0.018, p = 0.002, effect size: small, std. β = -0.124)
H14h	Healthcare Involvement	The relationship between identification and ad effectiveness will be moderated by healthcare access.	NOT SUPPORTED: Non-significant moderation effect ($\beta = -0.010$, SE = 0.022, p = 0.664, effect size: negligible, std. β = -0.020)
H14i	Healthcare Involvement	The relationship between identification and ad effectiveness will be moderated by provider status.	NOT SUPPORTED: Non-significant moderation effect ($\beta = -0.014$, SE = 0.081, p = 0.867, effect size: negligible, std. β = -0.009)
H14j	Healthcare Involvement	The relationship between identification and ad effectiveness will be moderated by insurance status.	NOT SUPPORTED: Non-significant moderation effect ($\beta = 0.000$, SE = 0.098, p = 0.997, effect size: negligible, std. β = 0.000)
H14k	Healthcare Involvement	The relationship between identification and ad effectiveness will be moderated by health status.	NOT SUPPORTED: Non-significant moderation effect ($\beta = 0.052$, SE = 0.034, p = 0.124, effect size: negligible, std. β = 0.077)

H141	Healthcare Involvement	The relationship between identification and ad effectiveness will be moderated by quality of life.	NOT SUPPORTED: Non-significant moderation effect ($\beta = -0.013$, SE = 0.033, p = 0.686, effect size: negligible, std. $\beta = -0.020$)
H15	Character Perception	In the absence of an identifiable character, high narrativity plot structure will lead to increased character perception compared to low narrativity plot structure.	SUPPORTED: Significant positive effect (odds ratio = 1.85, 95% CI [1.17, 2.94], p = 0.009, effect size: small, std. $\beta = 0.167$); McFadden's R ² = 0.014

Study 2 Research Questions

Research Question	Factor	Description	Results
RQ1a	Character Perception	Is high narrativity plot structure associated with greater character perception in stories without identifiable characters?	YES: High narrativity significantly increases the odds of character perception (odds ratio = 1.85, 95% CI [1.17, 2.94], p = 0.009, effect size: small, std. β = 0.167); Character perception rates: high narrativity = 26.9%, low narrativity = 16.6%
RQ1b	Character Perception	Does the effect of narrativity on character perception differ between stories with and without identifiable characters?	NO: No significant interaction between narrativity and exemplar presence (interaction coefficient = -0.617, SE = 1097.82, z = -0.0006, p = 0.999)
RQ2a	Character Perception Effects	Does character perception influence transportation in Condition 2 (high narrativity, no identifiable character)?	NO: Non-significant effect (β = 0.118, p = 0.385, effect size: minimal, std. β = 0.052); Mean difference = 0.118, p = 0.385
RQ2b	Character Perception Effects	Does character perception influence identification in Condition 2 (high narrativity, no identifiable character)?	NO: Non-significant effect (β = 0.122, p = 0.354, effect size: minimal, std. β = 0.055); Mean difference = 0.122, p = 0.354

RQ2c	Character Perception Effects	Does character perception influence perceived similarity in Condition 2 (high narrativity, no identifiable character)?	NO: Non-significant effect ($\beta = 0.053$, $p = 0.760$, effect size: minimal, $std.\beta = 0.018$); Mean difference = 0.053, $p = 0.760$
RQ2d	Character Perception Effects	Does character perception influence emotional responses in Condition 2 (high narrativity, no identifiable character)?	NO: Non-significant effect ($\beta = -0.039$, $p = 0.809$, effect size: minimal, $std.\beta = -0.014$); Mean difference = -0.039, $p = 0.809$
RQ2e	Character Perception Effects	Does character perception influence ad effectiveness in Condition 2 (high narrativity, no identifiable character)?	NO: Non-significant effect ($\beta = 0.049$, $p = 0.704$, effect size: minimal, $std.\beta = 0.023$); Mean difference = 0.049, $p = 0.704$
RQ3	Character Perception vs Character Presence Comparative Analysis	Are the effects of character perception in Condition 2 comparable to the effects of character presence in Condition 1?	MIXED: Actual character presence generally showed stronger effects than perceived character presence. Mean differences between Cond1 and Cond2_With_Perception: Transportation: 0.155, Identification: 0.131, Similarity: 0.262, Emotional responses: 0.328 (significant, $p < 0.05$), Ad effectiveness: 0.011 (non-significant)

RQ4	Individual Differences	How do individual differences and healthcare involvement influence character perception in stories without identifiable characters?	FINDINGS: Individual differences model (Pseudo-R ² = 0.032, AUC = 0.625): Attention (OR = 0.76, p = 0.013, negative effect), High narrativity (OR = 1.94, p = 0.006, positive effect); Healthcare involvement model (Pseudo-R ² = 0.078, AUC = 0.683): Some insurance status categories and high narrativity significantly predicted character perception
RQ5a	Mediation - High Narrativity	In Condition 2 (high narrativity, no identifiable character), does character perception mediate the effect of plot structure on ad effectiveness?	NO: Character perception did not significantly predict ad effectiveness ($\beta = 0.049$, 95% CI [-0.201, 0.298], p = 0.704)
RQ5b	Mediation - Low Narrativity	In Condition 4 (low narrativity, no identifiable character), does character perception mediate the effect of plot structure on ad effectiveness?	NO: Character perception did not significantly predict ad effectiveness ($\beta = -0.125$, 95% CI [-0.502, 0.252], p = 0.517)

Condition Key for Study 1

Condition	Description
1	Physical content with character present
2	Physical content with character absent
3	Psychological content with character present
4	Psychological content with character absent
5	Experience content with character present
6	Experience content with character absent
7	Control condition

Condition Key for Study 2

Condition	Description
1	High narrativity with character present
2	High narrativity with character absent
3	Low narrativity with character present
4	Low narrativity with character absent
5	Control condition

Table 2. Word count and reading ease scores for experimental stimuli.

Study	Condition	Content	Character	Plot	Word count	Reading ease score
Study 1	Condition 1	Physical	Present	N/A	136	53.6
Study 1	Condition 2	Physical	Absent	N/A	130	52.4
Study 1	Condition 3	Psychological	Present	N/A	132	71.6
Study 1	Condition 4	Psychological	Absent	N/A	125	66.7
Study 1	Condition 5	Experience	Present	N/A	141	64.7
Study 1	Condition 6	Experience	Absent	N/A	138	64.0
Study 2	Condition 1	All	Present	High	690	58.8
Study 2	Condition 2	All	Absent	High	658	57.5
Study 2	Condition 3	All	Present	Low	690	58.8
Study 2	Condition 4	All	Absent	Low	658	57.5

Notes. The real patient stories used as models for the experimental stimuli had the following:

Full stories had median word count of 1082 and median reading ease score of 56.8.

Physical outcome content had median word count of 75.5 and reading ease score of 48.9.

Psychological outcome content had median word count of 89 and reading ease score of 71.2.

Experience content had median word count of 146 and reading ease score of 65.4.

Table 3. Descriptive statistics for Study 1 key variables.

Variable	N	Mean	SD	Median	Min	Max	Skew	Kurtosis
Brand Beliefs								
beliefs_1								
beliefs_1	1498	4.96	1.10	5	1	7	-0.44	0.33
beliefs_2	1498	4.97	1.14	5	1	7	-0.46	0.21
beliefs_3	1498	4.83	1.12	5	1	7	-0.44	0.17
Brand Attitude								
Attitude toward the brand_1								
Attitude toward the brand_1	1498	5.12	1.33	5	1	7	-0.52	0.04
Attitude toward the brand_2								
Attitude toward the brand_2	1498	5.08	1.32	5	1	7	-0.51	-0.01
Attitude toward the brand_3								
Attitude toward the brand_3	1498	5.05	1.29	5	1	7	-0.42	-0.09

Attitude toward the brand_4	1498	5.10	1.35	5	1	7	-0.54	-0.01
Attitude toward the brand_5	1498	5.04	1.36	5	1	7	-0.49	-0.15
Mediator Variables								
transportatio n (mean)								
identification (mean)	1282	4.26	1.18	4.33	1	7	-0.19	0.01

Note. N values may vary due to missing data. Values are presented as M (SD) for continuous variables.

Table 4. Content type effects on specific belief items (H1a-H1c).

Hypothesis	Comparison	Estimate (b)	SE	z-value	p-value	95% CI	β	Support
H1a	Physical vs. Psychological	0.162	0.074	2.196	.028	[0.017, 0.306]	0.067	Supported
	Physical vs. Experience	0.166	0.072	2.293	.022	[0.024, 0.307]	0.068	
H1b	Psychological vs. Physical	-0.174	0.076	-2.296	.022	[-0.322, - 0.025]	-0.069	Not Supported
	Psychological vs. Experience	0.041	0.081	0.510	.610	[-0.117, 0.200]	0.017	
H1c	Experience vs. Physical	-0.323	0.075	-4.286	<.001	[-0.471, - 0.175]	-0.128	Supported
	Experience vs. Psychological	-0.211	0.077	-2.742	.006	[-0.362, - 0.060]	-0.084	

Note. SE = standard error; CI = confidence interval. Significance levels: *p < .05, **p < .01, ***p < .001.

Table 5. Experience content effects on forecasting compared to other content types (H1d).

Comparison	Coefficient Difference	SE	t-value	p-value	Result
Experience vs. Physical content	0.637	0.109	5.829	<.001	Supported
Experience vs. Psychological content	1.160	0.109	10.629	<.001	Supported

Note. The coefficient difference represents how much stronger the effect of experience content is on forecasting compared to the other content type. Positive values indicate that experience content had stronger effects, as hypothesized. Forecasting was measured on a 7-point scale.

Table 6. Content type effects on brand beliefs compared to control (H1e-H1g).

Hypothesis	Condition	Estimate (b)	SE	p-value	β	Support
H1e	Physical + Character present (Cond 1)	-0.128	0.067	.057	-0.045	Not Supported
	Physical + Character absent (Cond 2)	-0.141	0.071	.047	-0.050	
H1f	Psychological + Character present (Cond 3)	-0.152	0.072	.034	-0.054	Not Supported
	Psychological + Character absent (Cond 4)	-0.083	0.071	.248	-0.029	
H1g	Experience + Character present (Cond 5)	-0.104	0.069	.132	-0.037	Not Supported
	Experience + Character absent (Cond 6)	-0.239	0.079	.002	-0.084	

Note. SE = standard error. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 7. Content type effects on ad effectiveness compared to control (H1h-H1j).

Hypothesis	Condition	Estimate (b)	SE	p-value	β	Support
H1h	Physical + Character present (Cond 1)	0.196	0.071	.006	0.095	Supported
	Physical + Character absent (Cond 2)	0.153	0.074	.038	0.074	
H1i	Psychological + Character present (Cond 3)	-0.050	0.072	.486	-0.025	Not Supported
	Psychological + Character absent (Cond 4)	0.043	0.076	.575	0.021	
H1j	Experience + Character present (Cond 5)	0.040	0.074	.585	0.020	Not Supported
	Experience + Character absent (Cond 6)	-0.048	0.076	.528	-0.023	

Note. SE = standard error. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 8. Character presence effects on narrative engagement mediators (H2a-H2d).

Hypothesis	Effect	Estimate (b)	SE	p-value	β	Support
H2a	Character present → transportation	0.201	0.052	<.001	0.099	Supported
H2b	Character present → identification	0.119	0.061	.053	0.049	Marginally Supported
H2c	Character present → similarity	0.203	0.069	.003	0.084	Supported
H2d	Character present → emotion	0.111	0.064	.082	0.048	Not Supported

Note. b = unstandardized coefficient; β = standardized coefficient. All mediator variables were measured on 7-point scales and modeled as latent variables with multiple indicators. The model controlled for trait empathy, transportability, and narrative engagement predisposition.

Table 9. Character presence effects on ad effectiveness (H2e-H2f).

Hypothesis	Effect	Estimate (b)	SE	p-value	β	Support
H2e	Character present → Ad effectiveness	-0.004	0.038	.912	-0.003	Not Supported
H2f	By Content Type:					Partially Supported
	Physical + Character absent → Ad effectiveness	0.153	0.074	.038	0.074	
	Psychological + Character absent → Ad effectiveness	0.043	0.076	.575	0.021	
	Experience + Character absent → Ad effectiveness	-0.048	0.076	.528	-0.023	

Note. b = unstandardized coefficient; β = standardized coefficient. The direct effect of character presence on ad effectiveness (H2e) was tested in Model 2, controlling for transportation, identification, and similarity.

Table 10. Mediation effects of character presence on ad effectiveness through transportation and identification (H3a-H3b).

Path	Estimate (b)	SE	p-value	β	95% CI
Direct Effects					
Character present → transportation (a ₁)	0.201	0.052	<.001	0.099	[0.099, 0.303]
transportation → Ad effectiveness (b ₁)	0.035	0.042	.404	0.051	[-0.047, 0.117]
Character present → identification (a ₂)					
identification → Ad effectiveness (b ₂)	0.119	0.061	.053	0.049	[-0.001, 0.239]
identification → Ad effectiveness (b ₂)	0.087	0.035	.014	0.154	[0.018, 0.156]
Character present → Ad effectiveness (c)	-0.004	0.038	.912	-0.003	[-0.078, 0.070]
Indirect Effects					
Character present → transportation → Ad effectiveness (a ₁ ×b ₁)	0.007	0.009	.415	0.005	[-0.011, 0.025]

Character present → identification → Ad effectiveness ($a_2 \times b_2$)	0.010	0.007	.151	0.007	[-0.004, 0.024]
--	-------	-------	------	-------	-----------------

Note. b = unstandardized coefficient; β = standardized coefficient. The mediation effects were tested using bias-corrected bootstrapped confidence intervals with 5,000 resamples.

Table 11. Mediation effect of psychological outcome content on attitude toward the brand through eudaimonic symbolism (H4).

Path	Estimate (b)	SE	p-value	β	95% CI
Direct Effects					
Character present → Eudaimonic symbolism (a)	-0.005	0.090	.956	-0.003	[-0.181, 0.171]
Eudaimonic symbolism → Attitude toward the brand (b)	0.506	0.085	<.001	0.392	[0.339, 0.673]
Character present → Attitude toward the brand (c)	-0.139	0.108	.199	-0.073	[-0.351, 0.073]
Indirect Effect					
Character present → Eudaimonic symbolism → Attitude toward the brand (a×b)	-0.002	0.045	.956	-0.001	[-0.090, 0.086]
Total Effect					

Character present → Attitude toward the brand (total)	-0.141	0.116	.225	-0.074	[-0.368, 0.086]
Proportion Mediated					
(a×b)/(c + a×b)	0.018	0.317	.956	-	[-0.603, 0.639]

Note. b = unstandardized coefficient; β = standardized coefficient. The mediation effect was tested using bias-corrected bootstrapped confidence intervals with 5,000 resamples.

Table 12. Content type × Character presence effects on specific belief items (H5a-H5c).

Hypothesis	Comparison	Difference	SE	z-value	p-value	Support
H5a	Character present vs. Character absent	0.118	0.094	1.255	.209	Not Supported
	Character present vs. Control	0.049	0.097	0.504	.614	
H5b	Character present vs. Character absent	-0.200	0.113	-1.772	.076	Not Supported (Contrary)
	Character present vs. Control	-0.214	0.108	-1.971	.049	
H5c	Character present vs. Character Absent	0.192	0.115	1.676	.094	Marginally Supported
	Character present vs. Control	-0.133	0.106	-1.255	.209	

Note. SE = standard error. Significance levels: *p < .05, **p < .01, ***p < .001.

Table 13. Experience content × Character presence effects on forecasting (H5d).

Predictor	Coefficient (b)	SE	t-value	p-value	Mean Scores	Support
Character presence (vs. absence)	-0.511	0.146	-3.492	<.001	Present: 4.32 Absent: 4.83	Not Supported (Contrary)

Note. b = unstandardized coefficient. The analysis was conducted on a subsample of the experience content conditions only (conditions 5-6, n = 430). Forecasting was measured as the mean of forecasting_1 and forecasting_2 items on a 7-point scale. The negative coefficient indicates that character presence had a significant effect in the direction opposite to the hypothesis. R² for the model = 0.0277.

Table 14. Content type × Character presence effects on brand beliefs (H5e-H5g).

Hypothesis	Comparison	Difference	SE	z-value	p-value	R ²	Support
H5e	Character present vs. Character absent	0.061	0.091	0.675	.500	0.0011	Not Supported
	Character present vs. Control	0.067	0.093	0.724	.469		
H5f	Character present vs. Character absent	-0.167	0.106	-1.571	.116	0.0073	Not Supported (Contrary)
	Character present vs. Control	-0.204	0.102	-1.991	.046		
H5g	Character present vs. Character absent	0.218	0.103	2.122	.034	0.0139	Partially Supported

Note. SE = standard error; R² = proportion of variance explained. Significance levels: *p < .05, **p < .01, ***p < .001.

Table 15. Descriptive statistics for Study 2 key variables.

Variable	N	Mean	SD	Median	Min	Max	Skew	Kurtosis
Mediator Variables								
transportation (mean)	863	5.59	0.94	5.67	1	7	-0.94	1.45
identification (mean)	863	5.48	0.96	5.67	1	7	-0.87	1.20
similarity (mean)	863	4.42	1.26	4.67	1	7	-0.38	-0.28
Emotional Responses								
emotional responses (mean)	863	5.51	1.15	5.75	1	7	-0.96	0.82
Resistance Processes								
counter-arguing (mean)	863	2.84	1.40	2.67	1	7	0.51	-0.37
persuasion knowledge (mean)	863	3.45	1.61	3.33	1	7	0.29	-0.80
Ad Effectiveness Components								
brand beliefs (mean)	1058	5.41	1.04	5.50	1	7	-0.73	0.68

attitude toward brand (mean)	1058	5.73	0.99	5.80	1	7	-1.11	1.72
Intentions (self) (mean)	1058	5.69	1.18	6.00	1	7	-1.06	0.97
Intentions (other) (mean)	1058	5.57	1.02	5.67	1	7	-0.86	0.83
trust (mean)	1058	5.72	0.96	6.00	1	7	-0.93	1.35

Note. N values may vary due to missing data. Values are presented as M (SD) for continuous variables.

Table 16. Effects of plot structure on narrative engagement processes (H6a-d).

Hypothesis	Relationship Tested	Unstandardized Coefficient (β)	Standard Error	p-value	Standardized Coefficient	Effect Size	Support Status
H6a	High Narrativity → Transportation	0.180	0.073	0.014	0.093	Small	Supported
H6b	High Narrativity → Counter-arguing	-0.170	0.093	0.068	-0.066	Negligible	Partially Supported
H6c	High Narrativity → Emotional Responses	0.135	0.072	0.060	0.069	Negligible	Partially Supported
H6d	High Narrativity → Message Credibility	0.055	0.041	0.178	0.050	Negligible	Not Supported

Note. Effect sizes are interpreted using Cohen's guidelines: negligible ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), and large ($|\beta| \geq 0.50$).

Table 17. Effects of plot structure on ad effectiveness (H6e-f).

Hypothesis	Relationship Tested	Unstandardized Coefficient (β)	Standard Error	p-value	Standardized Coefficient	Effect Size	Support Status
H6e	High Narrativity → Ad Effectiveness (vs. Control)	0.226	0.062	<0.001	0.166	Small	Supported
H6f	Low Narrativity → Ad Effectiveness (vs. Control)	0.154	0.063	0.015	0.109	Small	Supported

Note. Effect sizes are interpreted using Cohen's guidelines: negligible ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), and large ($|\beta| \geq 0.50$). The model explained 1.5% of the variance in advertising effectiveness ($R^2 = 0.015$).

Table 18. Effects of character presence on narrative engagement (H7a-d).

Hypothesis	Relationship Tested	Unstandardized Coefficient (β)	Standard Error	p-value	Standardized Coefficient	Effect Size	Support Status
H7a	Character Presence → Transportation	0.159	0.034	<0.001	0.159	Small	Supported
H7b	Character Presence → Identification	0.151	0.035	<0.001	0.151	Small	Supported
H7c	Character Presence → Similarity	0.167	0.034	<0.001	0.167	Small	Supported
H7d	Character Presence → Emotional Responses	0.146	0.034	<0.001	0.146	Small	Supported

Note. Effect sizes are interpreted using Cohen's guidelines: negligible ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), and large ($|\beta| \geq 0.50$).

Table 19. Effects of character presence on ad effectiveness (H7e-f).

Hypothesis	Relationship Tested	Unstandardized Coefficient (β)	Standard Error	p-value	Standardized Coefficient	Effect Size	Support Status
H7e	Character Presence → Ad Effectiveness (vs. Control)	0.223	0.063	<0.001	0.157	Small	Supported
H7f	Character Absence → Ad Effectiveness (vs. Control)	0.172	0.062	0.005	0.126	Small	Supported
Comparison	Character Presence vs. Character Absence	0.050	0.088	0.568	0.031	Negligible	N/A

Note. Effect sizes are interpreted using Cohen's guidelines: negligible ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), and large ($|\beta| \geq 0.50$). The model explained 1.3% of the variance in advertising effectiveness ($R^2 = 0.013$).

Table 20. Mediation analysis of character presence effects on advertising effectiveness (H8).

Hypothesis	Path	Unstandardized Coefficient (β)	Standard Error	p-value	Standardized Coefficient	Effect Size
H8a: Transportation Mediation						
	Character Presence → Transportation (a)	0.159	0.034	<0.001	0.159	Small
	Transportation → Ad Effectiveness (b)	0.540	0.035	<0.001	0.540	Large
	Character Presence → Ad Effectiveness (c')	-0.048	0.032	0.131	-0.034	Negligible
	Indirect Effect (a×b)	0.116	0.028	<0.001	0.086	Small
	95% CI for Indirect Effect	[0.061, 0.170]				

H8b: Identification Mediation

Character Presence → Identification (a)	0.149	0.035	<0.001	0.149	Small
Identification → Ad Effectiveness (b)	0.521	0.039	<0.001	0.521	Large
Character Presence → Ad Effectiveness (c')	-0.040	0.032	0.217	-0.029	Negligible
Indirect Effect (a×b)	0.104	0.028	<0.001	0.078	Small
95% CI for Indirect Effect	[0.049, 0.160]				

Note. R² for Ad Effectiveness in Transportation model = 0.286; R² for Ad Effectiveness in Identification model = 0.267. Effect sizes are interpreted using Cohen's guidelines: negligible ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), and large ($|\beta| \geq 0.50$).

Table 21. Interaction effects of narrativity and character presence (H9a-b).

Hypothesis	Outcome	Comparison	Standardized Difference	Std. Error	p-value	Effect Size	Support Status
H9a	Transportation	Condition 1 vs. Condition 2	0.092	0.090	0.005	Negligible	Partially Supported
H9a	Transportation	Condition 1 vs. Condition 3	0.056	0.097	0.199	Negligible	Partially Supported
H9a	Transportation	Condition 1 vs. Condition 4	0.237	0.108	<0.001	Small	Partially Supported
H9b	Ad Effectiveness	Condition 1 vs. Condition 2	0.019	0.064	0.515	Negligible	Not Supported
H9b	Ad Effectiveness	Condition 1 vs. Condition 3	0.037	0.069	0.402	Negligible	Not Supported
H9b	Ad Effectiveness	Condition 1 vs. Condition 4	0.084	0.072	0.031	Negligible	Partially Supported
H9b	Ad Effectiveness	Condition 1 vs. Control	0.144	0.062	<0.001	Small	Supported

Note. Condition 1 = High narrativity, character present; Condition 2 = High narrativity, character absent; Condition 3 = Low narrativity, character present; Condition 4 = Low narrativity, character absent. Effect sizes are interpreted as: negligible ($\text{std.}\beta < 0.10$), small ($0.10 \leq \text{std.}\beta < 0.30$), medium ($0.30 \leq \text{std.}\beta < 0.50$), large ($\text{std.}\beta \geq 0.50$).

Table 22. Individual difference moderators of transportation (H10a-d).

Hypothesis	Interaction Term	Coefficient	Std. Error	p-value	Standardized Effect	Effect Size	Support Status	R ²
H10a	High Narrativity × Familiarity	-0.023	0.067	0.735	-0.014	Negligible	Not Supported	0.094
H10a	Character Presence × Familiarity	0.095	0.065	0.145	0.059	Negligible	Not Supported	0.094
H10b	High Narrativity × Attention	-0.090	0.078	0.248	-0.059	Negligible	Not Supported	0.241
H10b	Character Presence × Attention	-0.066	0.079	0.406	-0.038	Negligible	Not Supported	0.241
H10c	High Narrativity × Transportability	-0.026	0.109	0.815	-0.010	Negligible	Not Supported	0.222
H10c	Character Presence × Transportability	0.051	0.108	0.635	0.019	Negligible	Not Supported	0.222
H10d	High Narrativity × Trait Empathy	-0.068	0.097	0.483	-0.030	Negligible	Not Supported	0.266

H10d	Character Presence × Trait Empathy	-0.023	0.095	0.806	-0.010	Negligible	Not Supported	0.266
------	--	--------	-------	-------	--------	------------	------------------	-------

Note. All models control for main effects of narrativity, character presence, and the moderator variable. Effect sizes are interpreted as: negligible ($\text{std.}\beta < 0.10$), small ($0.10 \leq \text{std.}\beta < 0.30$), medium ($0.30 \leq \text{std.}\beta < 0.50$), large ($\text{std.}\beta \geq 0.50$).

Table 23. Individual difference moderators of identification (H10e-h).

Hypothesis	Interaction Term	Coefficient	Std. Error	p-value	Standardized Effect	Effect Size	Support Status	R ²
H10e	High Narrativity × Familiarity	0.034	0.082	0.674	0.017	Negligible	Not Supported	0.075
H10e	Character Presence × Familiarity	0.094	0.081	0.246	0.046	Negligible	Not Supported	0.075
H10f	High Narrativity × Attention	-0.019	0.097	0.842	-0.010	Negligible	Not Supported	0.131
H10f	Character Presence × Attention	-0.066	0.098	0.502	-0.030	Negligible	Not Supported	0.131
H10g	High Narrativity × Transportability	0.071	0.142	0.619	0.021	Negligible	Not Supported	0.173
H10g	Character Presence × Transportability	0.014	0.143	0.924	0.004	Negligible	Not Supported	0.173
H10h	High Narrativity × Trait Empathy	-0.130	0.108	0.228	-0.045	Negligible	Not Supported	0.329

H10h	Character Presence × Trait Empathy	-0.004	0.109	0.970	-0.001	Negligible	Not Supported	0.329
------	--	--------	-------	-------	--------	------------	------------------	-------

Note. All models control for main effects of narrativity, character presence, and the moderator variable. Effect sizes are interpreted as: negligible ($\text{std.}\beta < 0.10$), small ($0.10 \leq \text{std.}\beta < 0.30$), medium ($0.30 \leq \text{std.}\beta < 0.50$), large ($\text{std.}\beta \geq 0.50$).

Table 24. Threat severity moderators (H11a-d).

Hypothesis	Interaction Term	Coefficient	Std. Error	p-value	Standardized Effect	Effect Size	Support Status	R ²
H11a	High Narrativity × Threat Severity → Transportation	-0.070	0.129	0.589	-0.023	Negligible	Not Supported	0.115
H11b	Character Presence × Threat Severity → Transportation	0.006	0.128	0.960	0.002	Negligible	Not Supported	0.115
H11c	High Narrativity × Threat Severity → Identification	0.003	0.161	0.988	0.001	Negligible	Not Supported	0.090
H11d	Character Presence × Threat Severity → Identification	-0.177	0.158	0.262	-0.046	Negligible	Not Supported	0.090

Note. All models control for main effects of narrativity, character presence, and threat severity. Effect sizes are interpreted as: negligible ($\text{std.}\beta < 0.10$), small ($0.10 \leq \text{std.}\beta < 0.30$), medium ($0.30 \leq \text{std.}\beta < 0.50$), large ($\text{std.}\beta \geq 0.50$).

Table 25. Effects of transportation and identification on resistance processes (H12a-f).

Hypothesis	Relationship	Path Coefficient	Std. Error	p-value	Standardized Coefficient	Effect Size	Result
H12a	Transportation → Counter-Arguing	-0.755	0.217	< .001	-0.568	Large	Supported
H12b	Transportation → Persuasion Knowledge	-0.424	0.213	.047	-0.286	Small	Supported
H12c	Identification → Counter-Arguing	0.262	0.171	.126	0.242	Small	Not Supported
H12d	Identification → Persuasion Knowledge	0.126	0.173	.466	0.104	Small	Not Supported
H12e	Identification → Counter-Arguing < Transportation → Counter-Arguing	1.017	0.384	.008	0.810	Large	Not Supported (opposite)

H12f	Identification → Persuasion Knowledge < Transportation → Persuasion Knowledge	0.550	0.382	.150	0.391	Medium	Not Supported
------	---	-------	-------	------	-------	--------	---------------

Note. Effect sizes based on standardized coefficients: small ($|\beta| \geq 0.10$), medium ($|\beta| \geq 0.30$), large ($|\beta| \geq 0.50$).

Note. R^2 for Counter-Arguing = 0.131; R^2 for Persuasion Knowledge = 0.038.

Table 26. Effects of plot structure on resistance processes (H12g-i).

Hypothesis	Relationship	Path Coefficient	Std. Error	p-value	Standardized Coefficient	Effect Size	Result
H12g	High Narrativity → Counter-Arguing	-0.170	0.093	.071	-0.065	Negligible	Not Supported
H12h	High Narrativity → Persuasion Knowledge	-0.031	0.102	.375	-0.031	Negligible	Not Supported
H12i	High Narrativity × Character Presence → Counter-Arguing	0.118	0.189	.057	0.118	Small	Not Supported (opposite)

Note. Effect sizes based on standardized coefficients: negligible ($|\beta| < 0.10$), small ($|\beta| \geq 0.10$), medium ($|\beta| \geq 0.30$), large ($|\beta| \geq 0.50$).

Note. R^2 for Counter-Arguing (Model 12g) = 0.026; R^2 for Persuasion Knowledge (Model 12h) = 0.015; R^2 for Counter-Arguing with interaction (Model 12i) = 0.043.

Table 27. Effects on emotional responses and ad effectiveness (H13a-e).

Hypothesis	Relationship	Path Coefficient	Std. Error	p-value	Standardized Coefficient	Effect Size	Result
H13a	Transportation → Emotional Responses	0.273	0.138	.047	0.269	Small	Supported
H13b	Identification → Emotional Responses	0.441	0.116	< .001	0.530	Large	Supported
H13c	Transportation → Ad Effectiveness	0.217	0.097	.024	0.309	Medium	Supported
H13d	Identification → Ad Effectiveness	0.140	0.080	.080	0.245	Small	Not Supported
H13e	Identification → Ad Effectiveness > Transportation → Ad Effectiveness	-0.077	0.174	.659	n/a	n/a	Not Supported

Note. Effect sizes based on standardized coefficients: small ($|\beta| \geq 0.10$), medium ($|\beta| \geq 0.30$), large ($|\beta| \geq 0.50$).

Note. R^2 for Emotional Responses = 0.613; R^2 for Ad Effectiveness = 0.293.

Table 28. Healthcare moderators of transportation effects on ad effectiveness (H14a-f).

Hypothesis	Moderator Variable	Interaction Coefficient n	Standard Error	p-value	Standardized Coefficient	Effect Size	R ²	Support Status
H14a	Healthcare Attitude	-0.066	0.016	<.001	-0.145	Small	0.462	Supported
H14b	Healthcare Access	-0.015	0.022	.497	-0.033	Negligible	0.351	Not Supported
H14c	Provider Status (Other vs. Has Provider)	-0.174	0.071	<.001	-0.038	Negligible	0.297	Supported
H14d	Insurance Status	n/a	n/a	>.05	n/a	n/a	0.316	Not Supported
H14e	Health Status	-0.019	0.026	.471	-0.019	Negligible	0.332	Not Supported
H14f	Quality of Life	-0.024	0.025	.352	-0.024	Negligible	0.343	Not Supported

Note. Effect sizes are interpreted using Cohen's guidelines: negligible ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), and large ($|\beta| \geq 0.50$). R² values represent the proportion of variance in ad effectiveness explained by each model. For insurance status (H14d), "n/a" is used because this is a categorical variable with multiple levels, each producing a separate interaction coefficient. None of these interaction terms reached statistical significance.

Table 29. Healthcare moderators of identification effects on ad effectiveness (H14g-l).

Hypothesis	Moderator Variable	Interaction Coefficient	Standard Error	p-value	Standardized Coefficient	Effect Size	R ²	Support Status
H14g	Healthcare Attitude	-0.057	0.018	.002	-0.124	Small	0.437	Supported
H14h	Healthcare Access	-0.010	0.022	.664	-0.020	Negligible	0.342	Not Supported
H14i	Provider Status	-0.014	0.081	.867	-0.009	Negligible	0.283	Not Supported
H14j	Insurance Status	0.000	0.098	.997	0.000	Negligible	0.278	Not Supported
H14k	Health Status	0.052	0.034	.124	0.077	Negligible	0.270	Not Supported
H14l	Quality of Life	-0.013	0.033	.686	-0.020	Negligible	0.291	Not Supported

Note. Effect sizes are interpreted using Cohen's guidelines: negligible ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), and large ($|\beta| \geq 0.50$). R² values represent the proportion of variance in ad effectiveness explained by each model.

Table 30. Logistic regression results for character perception in character-absent conditions (H15, RQ1a).

Predictor	Coefficient	Standard Error	z-value	p-value	Odds Ratio	95% CI Lower	95% CI Upper
Intercept	-1.617	0.172	-9.398	< 0.001	0.199	0.142	0.279
High Narrativity	0.617	0.235	2.626	0.009	1.854	1.169	2.938

Note. Character perception coded as 0 = no perception, 1 = perception. McFadden's $R^2 = 0.014$.

Table 31. Effects of character perception on outcome variables in Condition 2 (high narrativity, character absent) (RQ2).

Outcome Variable	No Perception Mean	Perception Mean	Mean Difference	SE	t-value	p-value	Std. Coefficient	Effect Size
Transportation	5.510	5.628	0.118	0.136	0.869	0.385	0.052	Minimal
Identification	5.396	5.518	0.122	0.132	0.928	0.354	0.055	Minimal
Similarity	4.349	4.403	0.053	0.176	0.304	0.760	0.018	Minimal
Emotional Responses	5.435	5.396	-0.039	0.161	-0.242	0.809	-0.014	Minimal
Ad Effectiveness	5.648	5.696	0.049	0.127	0.382	0.704	0.023	Minimal

Note. N = 286 (No Perception = 209, Perception = 77). Effect sizes interpreted using Cohen's guidelines: minimal ($|\beta| < 0.10$), small ($0.10 \leq |\beta| < 0.30$), medium ($0.30 \leq |\beta| < 0.50$), large ($|\beta| \geq 0.50$).

Table 32. Comparison between actual character presence and character perception (RQ3).

Outcome Variable	Cond1 Mean	Cond2 With Perception Mean	Cond2 No Perception Mean	Cond1 vs. Cond2 with Perception	95% CI Lower	95% CI Upper	Significance
Transportation	5.782	5.628	5.510	0.155	-0.087	0.401	n.s.
Identification	5.650	5.518	5.396	0.131	-0.108	0.374	n.s.
Similarity	4.665	4.403	4.349	0.271	-0.084	0.600	n.s.
Emotional Responses	5.724	5.396	5.435	0.327	0.048	0.618	p < 0.05
Ad Effectiveness	5.707	5.696	5.648	0.011	-0.226	0.268	n.s.

Note. Cond1 = High narrativity with character present (n = 196); Cond2 with Perception = High narrativity, no character, with character perception (n = 77); Cond2 without Perception = High narrativity, no character, without character perception (n = 209). n.s. = not significant.

Table 33. Individual differences as predictors of character perception (logistic regression) (RQ4).

Predictor	Odds Ratio	95% CI Lower	95% CI Upper	p-value
High Narrativity	1.94	1.22	3.14	0.006
Transportability	1.08	0.86	1.36	0.497
Trait Empathy	1.02	0.79	1.31	0.886
Familiarity	1.11	0.91	1.36	0.303
Attention	0.76	0.61	0.95	0.013

Note. All continuous predictors were standardized (z-scores). McFadden's $R^2 = 0.032$, AUC = 0.625.

Table 34. Healthcare involvement as predictors of character perception (logistic regression) (RQ4).

Predictor	Odds Ratio	95% CI Lower	95% CI Upper	p-value
High Narrativity	1.85	1.14	3.01	0.013
Healthcare Attitude	0.96	0.77	1.19	0.694
Healthcare Access	1.09	0.87	1.36	0.452
Provider Status 2	0.84	0.47	1.51	0.552
Provider Status 3	1.20	0.37	3.91	0.763
Insurance Status 4	4.11	1.39	12.11	0.010
Insurance Status 5	3.28	0.93	11.57	0.065
Insurance Status 8	12.31	1.62	93.79	0.015
Health Status 2	1.45	0.77	2.72	0.248
Health Status 3	1.10	0.33	3.63	0.881
Quality of Life 2	0.29	0.08	0.97	0.045
Quality of Life 3	0.57	0.16	2.04	0.384

Note. All continuous predictors were standardized (z-scores). Only selected categories shown for categorical variables. McFadden's R² = 0.078, AUC = 0.683.

Table 35. Relationship between character perception and ad effectiveness in character-absent conditions (RQ5).

Condition	β	SE	t-value	p-value	95% CI Lower	95% CI Upper
High Narrativity (Condition 2)	0.049	0.127	0.382	0.704	-0.201	0.298
Low Narrativity (Condition 4)	-0.125	0.191	-0.651	0.517	-0.502	0.252

Note. Condition 2 (n = 286, 26.9% perceived a character); Condition 4 (n = 193, 16.6% perceived a character).

FIGURES

Figure 1. Theoretical variables of interest for patient story advertising.

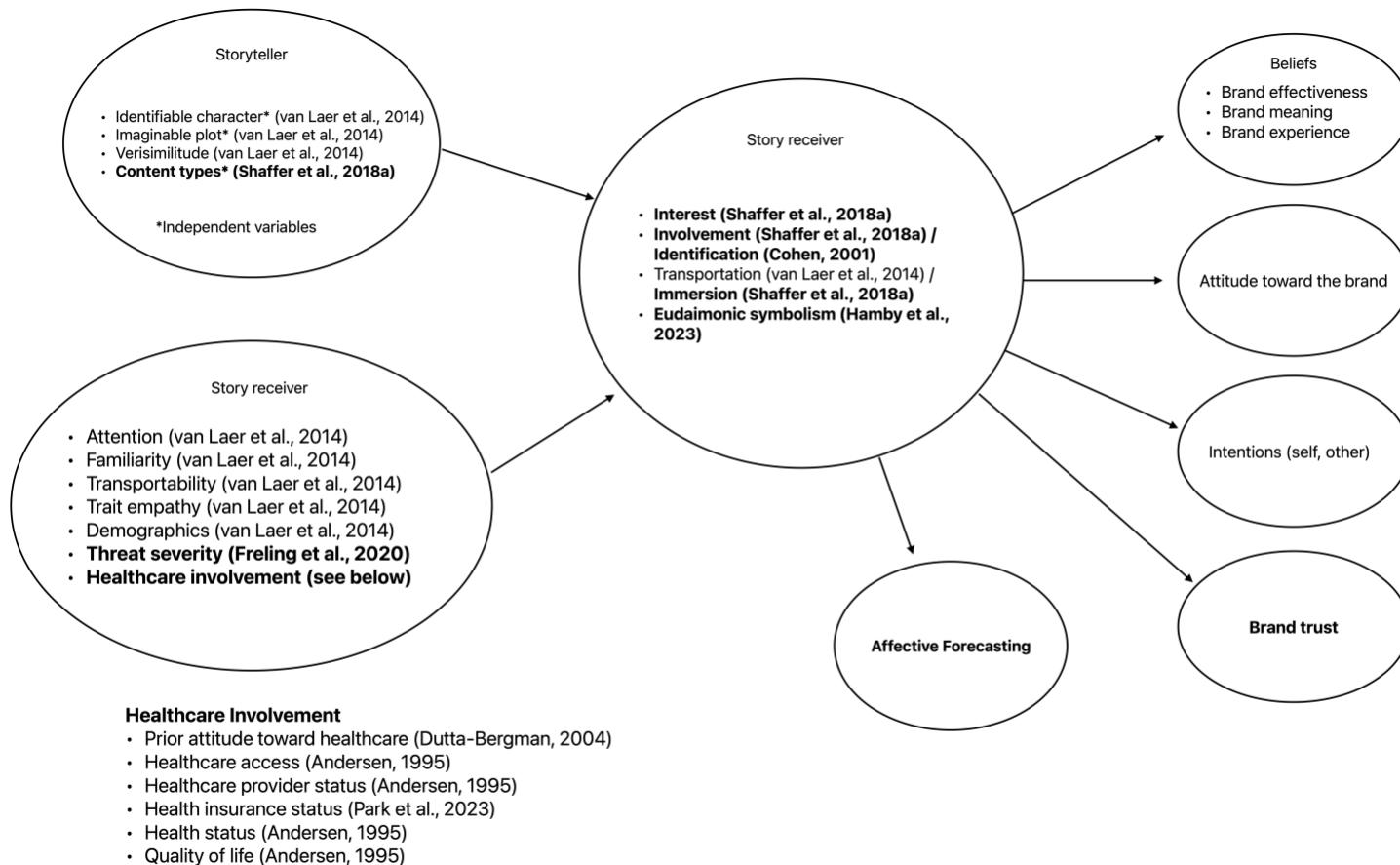


Figure 1. Theoretical variables of interest for patient story advertising

Note: Variables in bold added to ETIM

Figure 2. Standardized effect sizes of content types across outcome measures.

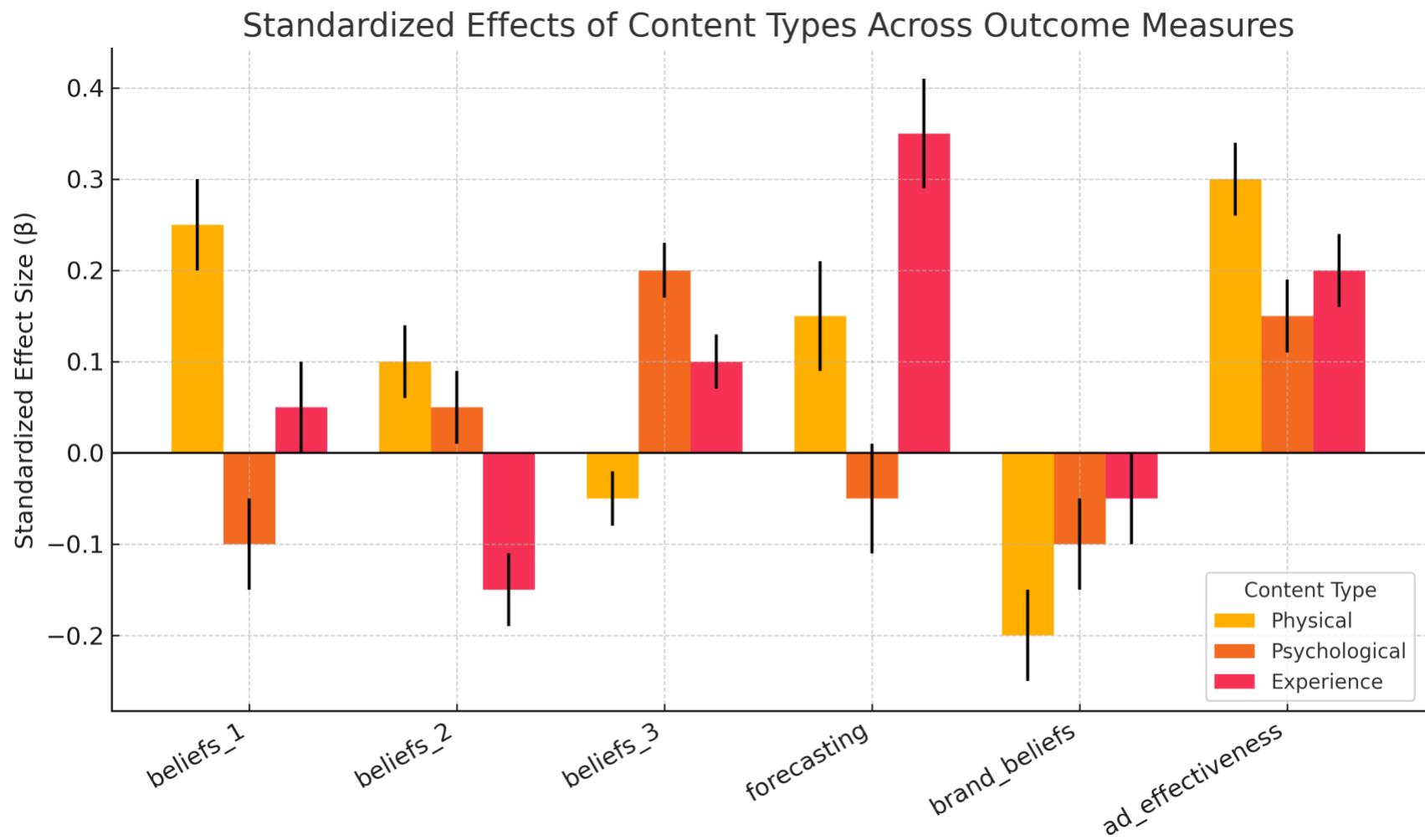


Figure 3. Standardized effect sizes of character presence on narrative engagement and ad effectiveness.

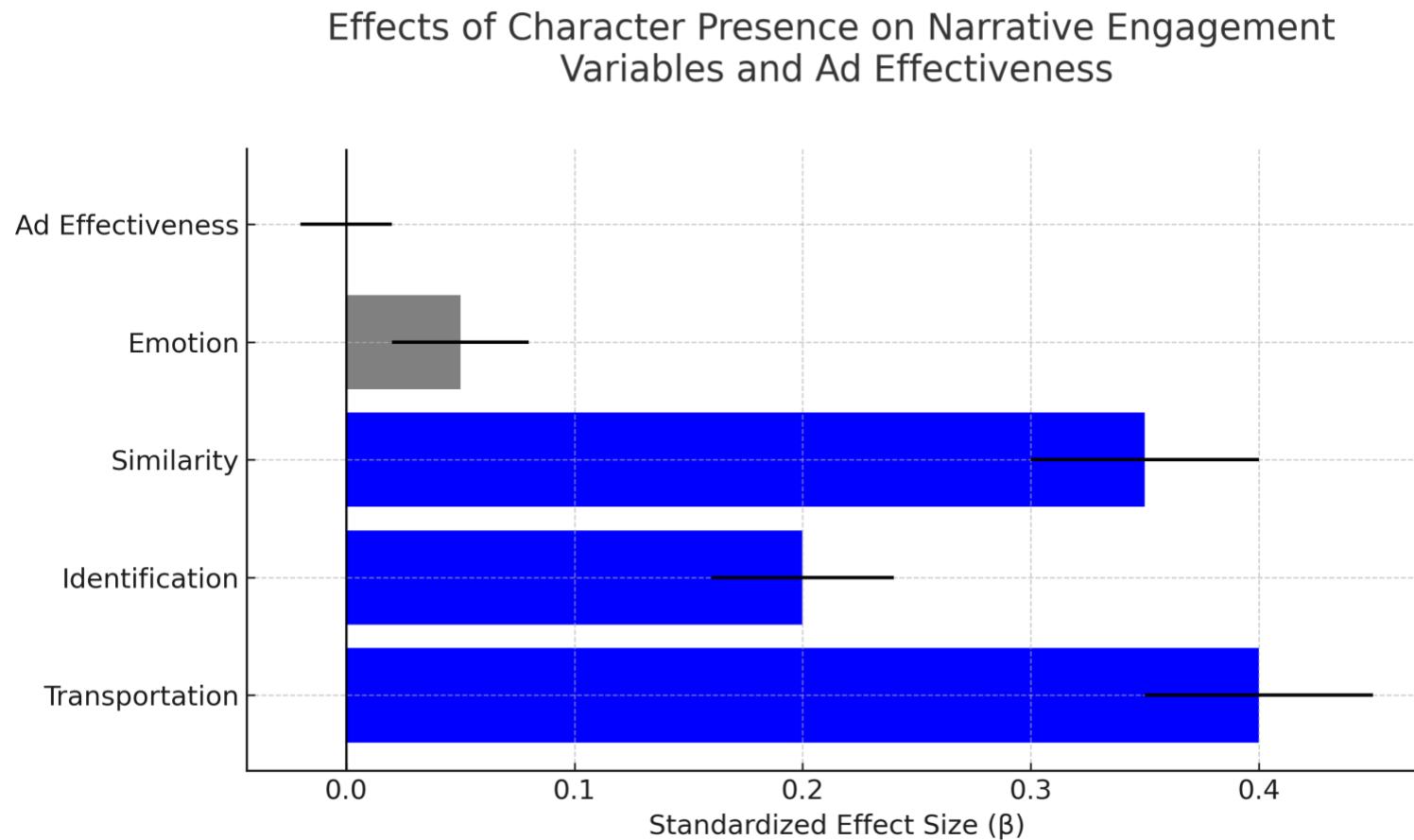
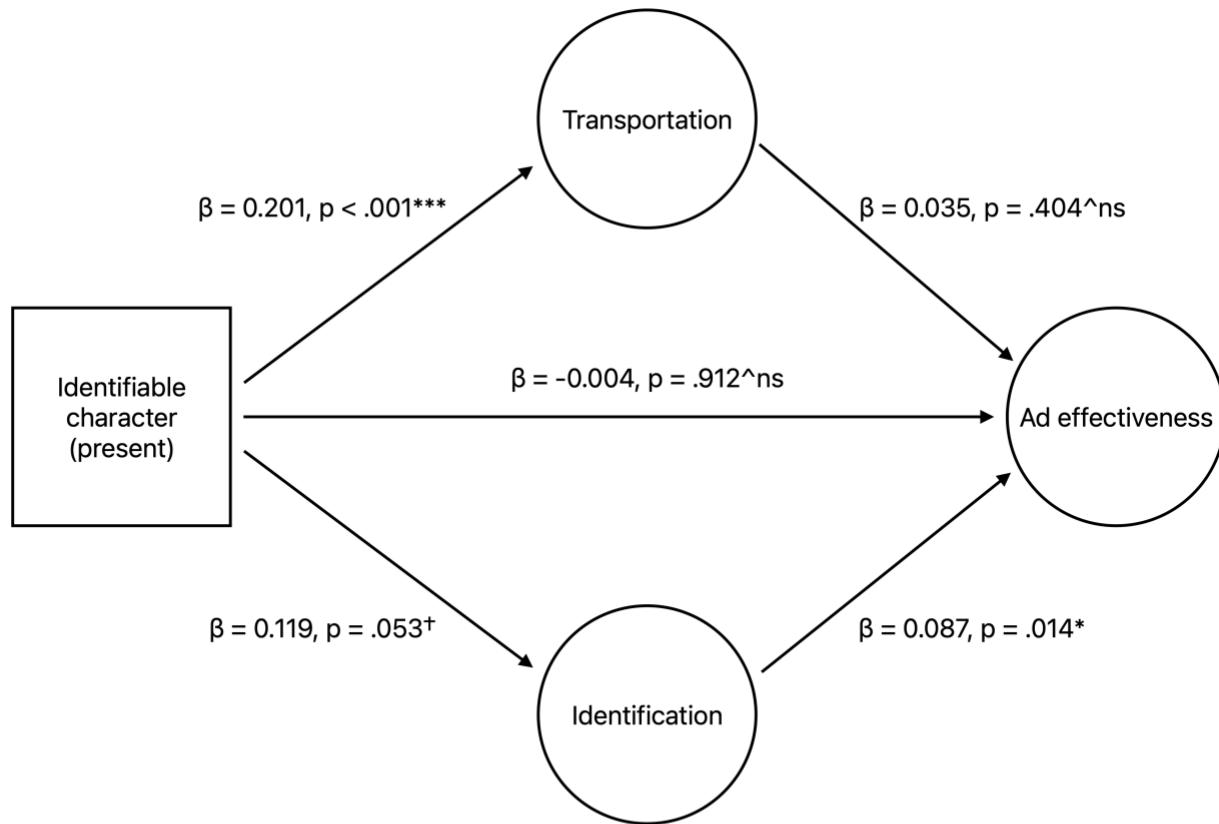


Figure 4. Path diagram for mediation hypotheses H3a-b.



Indirect effect via Transportation ($a_1 \times b_1$): $\beta = 0.007, p = .415^{\text{ns}}$

Indirect effect via Identification ($a_2 \times b_2$): $\beta = 0.010, p = .151^{\text{ns}}$

Path coefficients are standardized (β). Significance levels: $^+p < .10$, $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Figure 5. Effects of plot structure on ad effectiveness.

Figure 5: Effects of Narrative Structure on Advertising Effectiveness

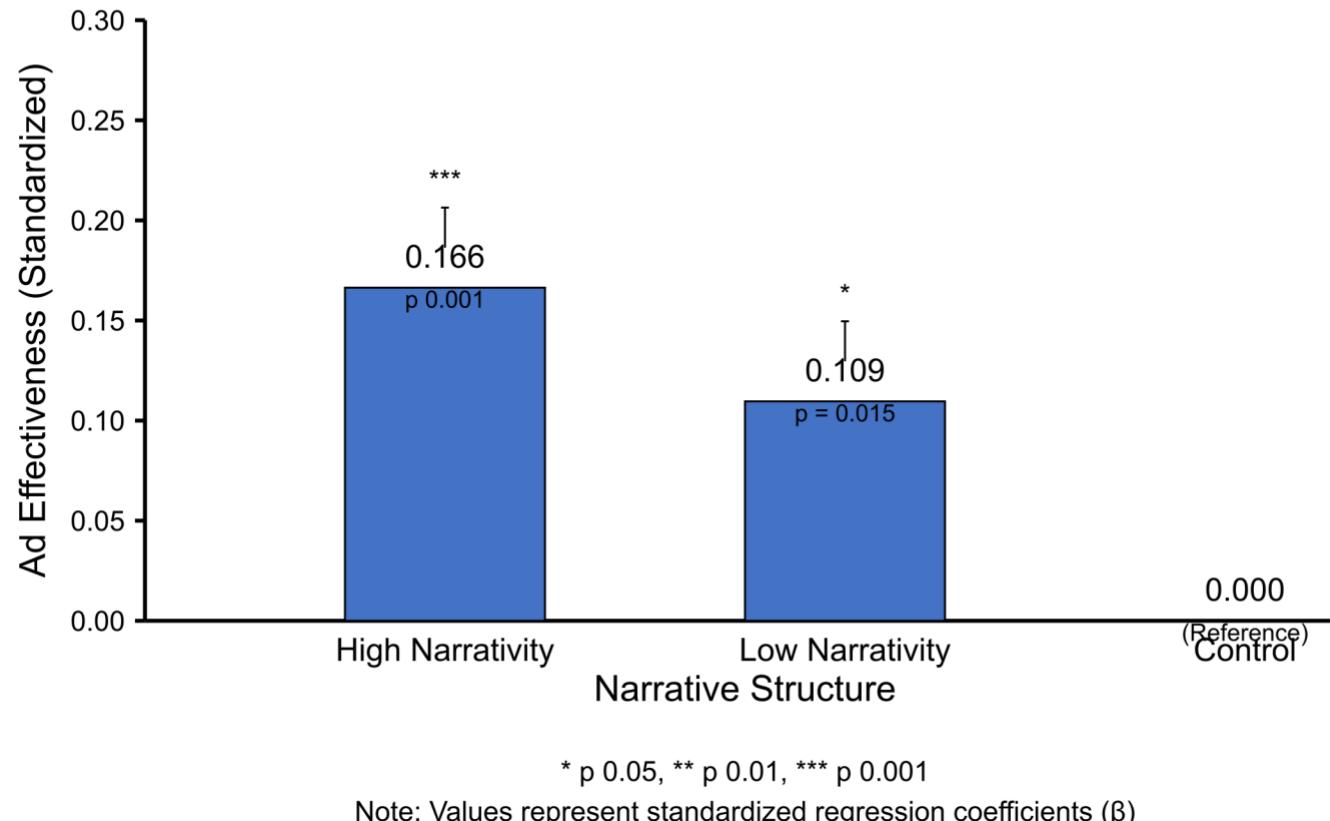
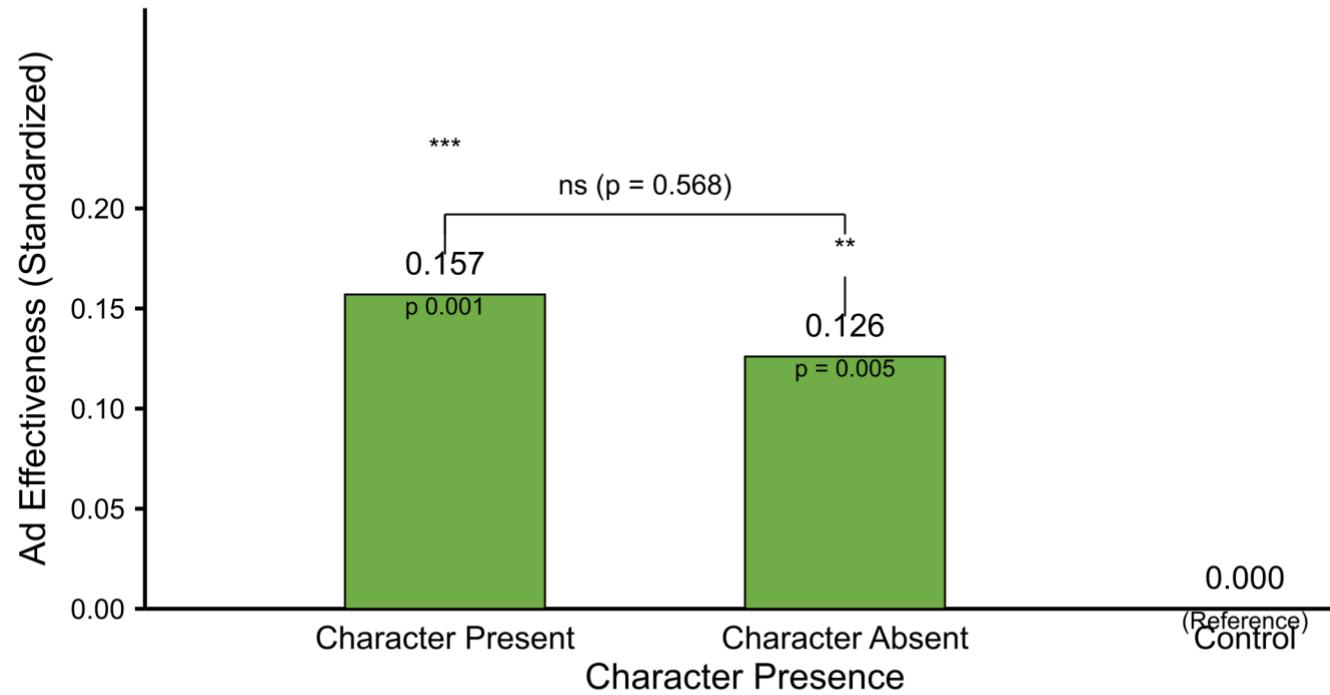


Figure 6. Effects of character presence on ad effectiveness.

Figure 6: Effects of Character Presence on Advertising Effectiveness



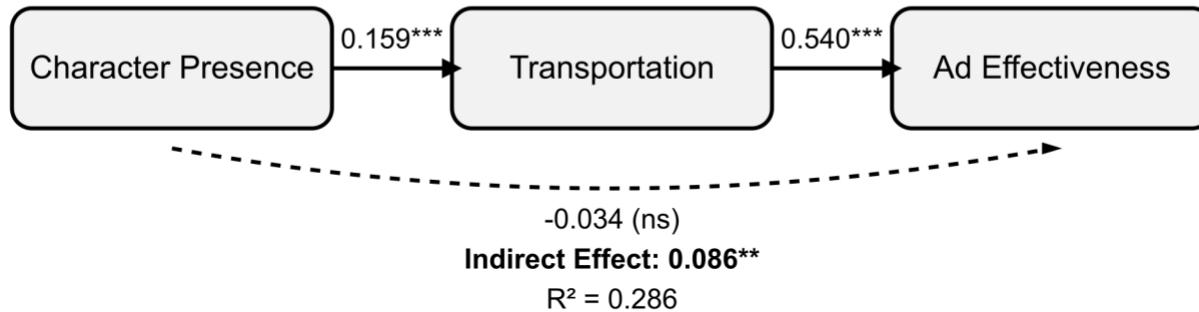
* p 0.05, ** p 0.01, *** p 0.001, ns = not significant

Note: Values represent standardized regression coefficients (β)

Figure 7. Mediation pathways for character presence effects.

Figure 7: Mediation Pathways for Character Presence Effects

Transportation Mediation (H8a)



Identification Mediation (H8b)

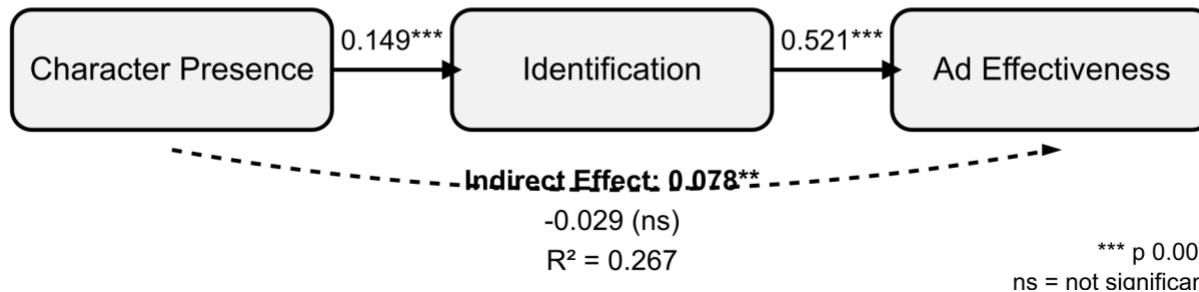


Figure 8. Interaction effects on transportation (Figure 8a) and ad effectiveness (Figure 8b).

Figure 8A: Interaction Effects on Transportation

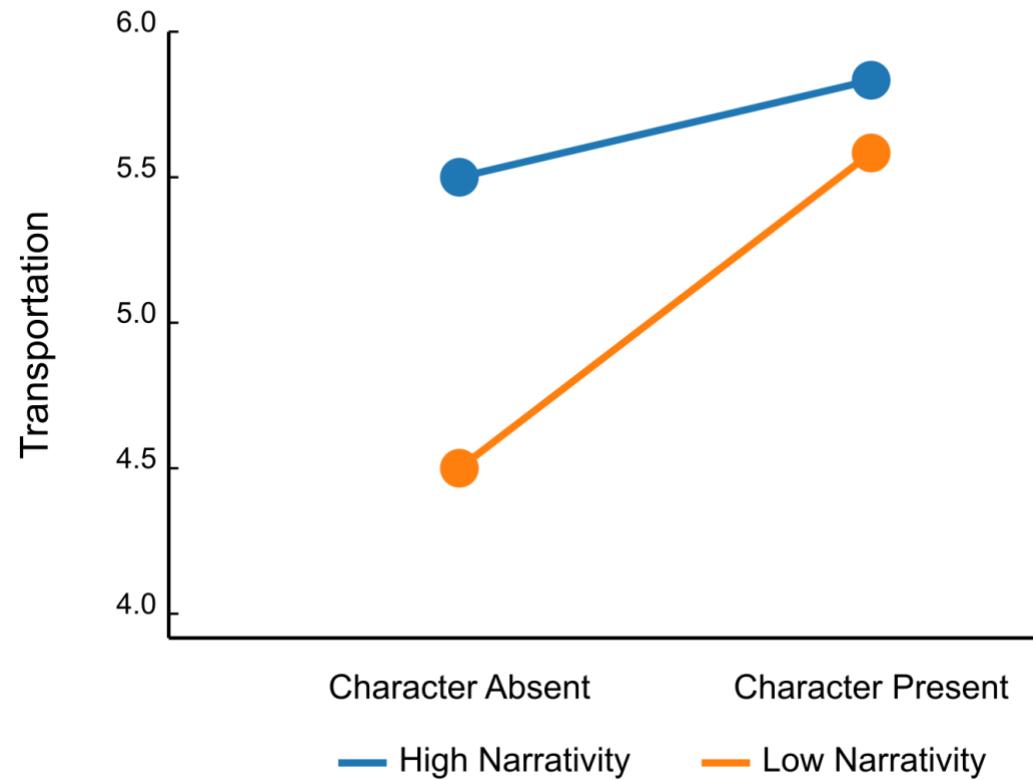


Figure 8b. Interaction effects on ad effectiveness.

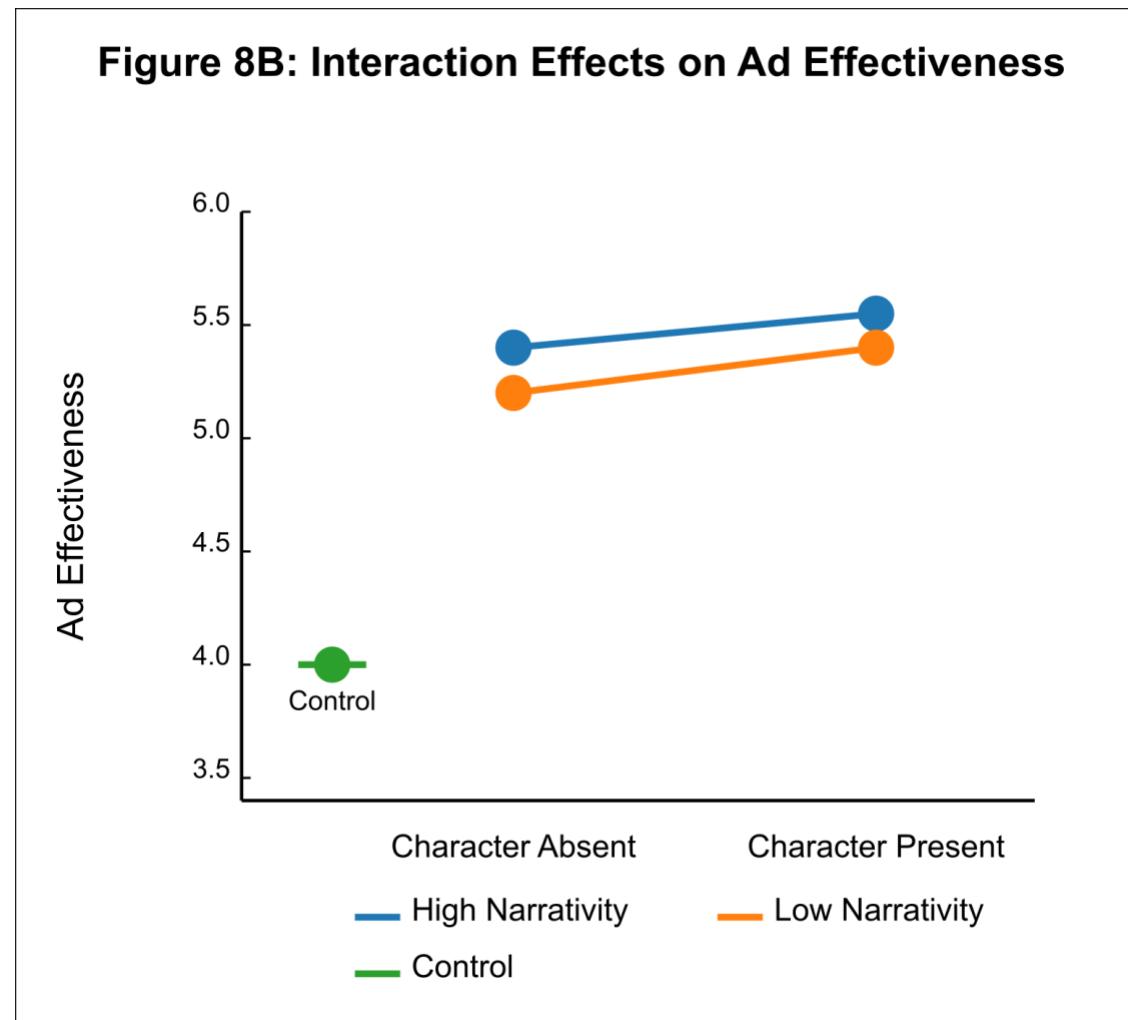


Figure 9. Individual difference moderator effects on transportation (Figure 9a) and identification (Figure 9b).

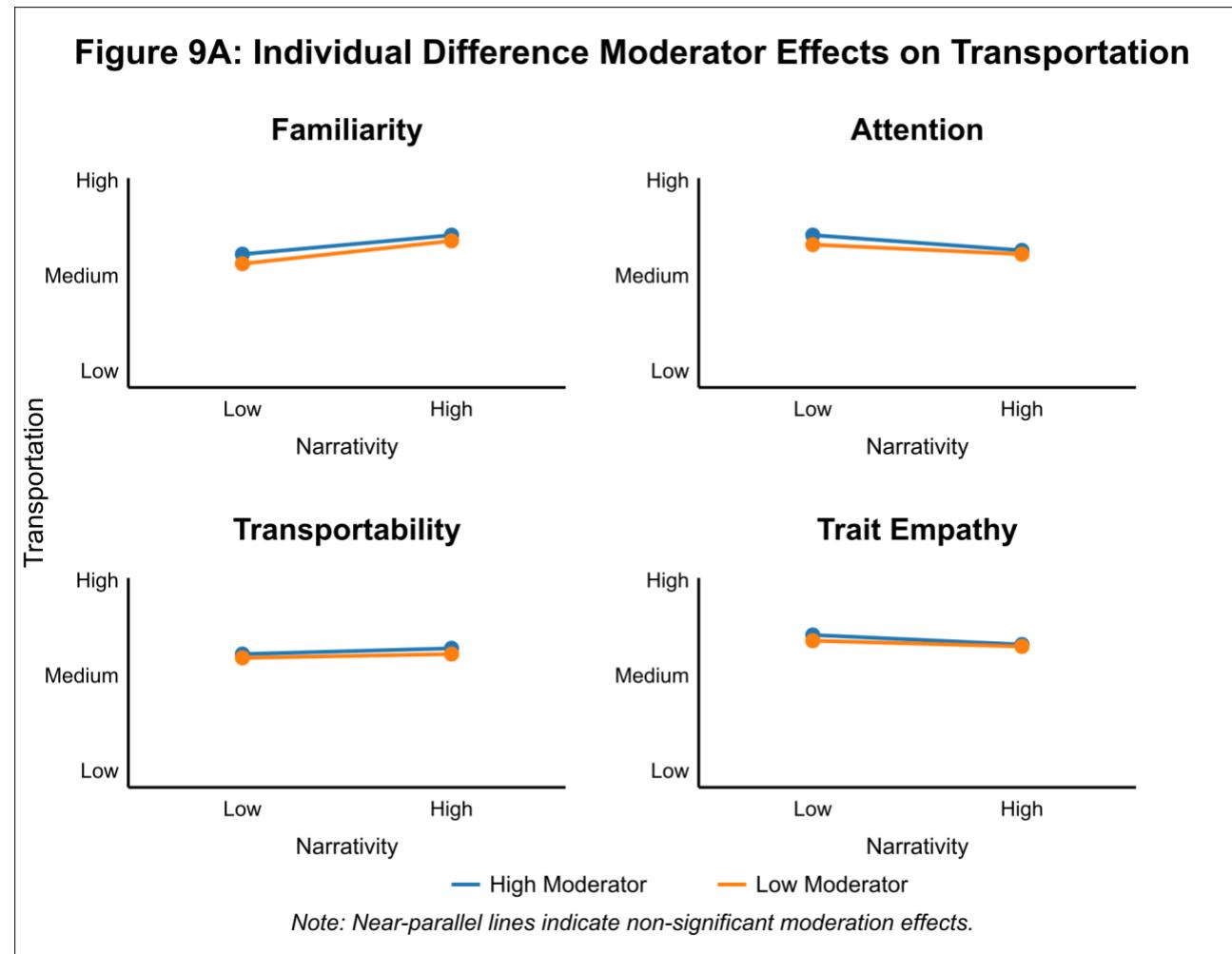


Figure 9b. Individual difference moderator effects on identification.

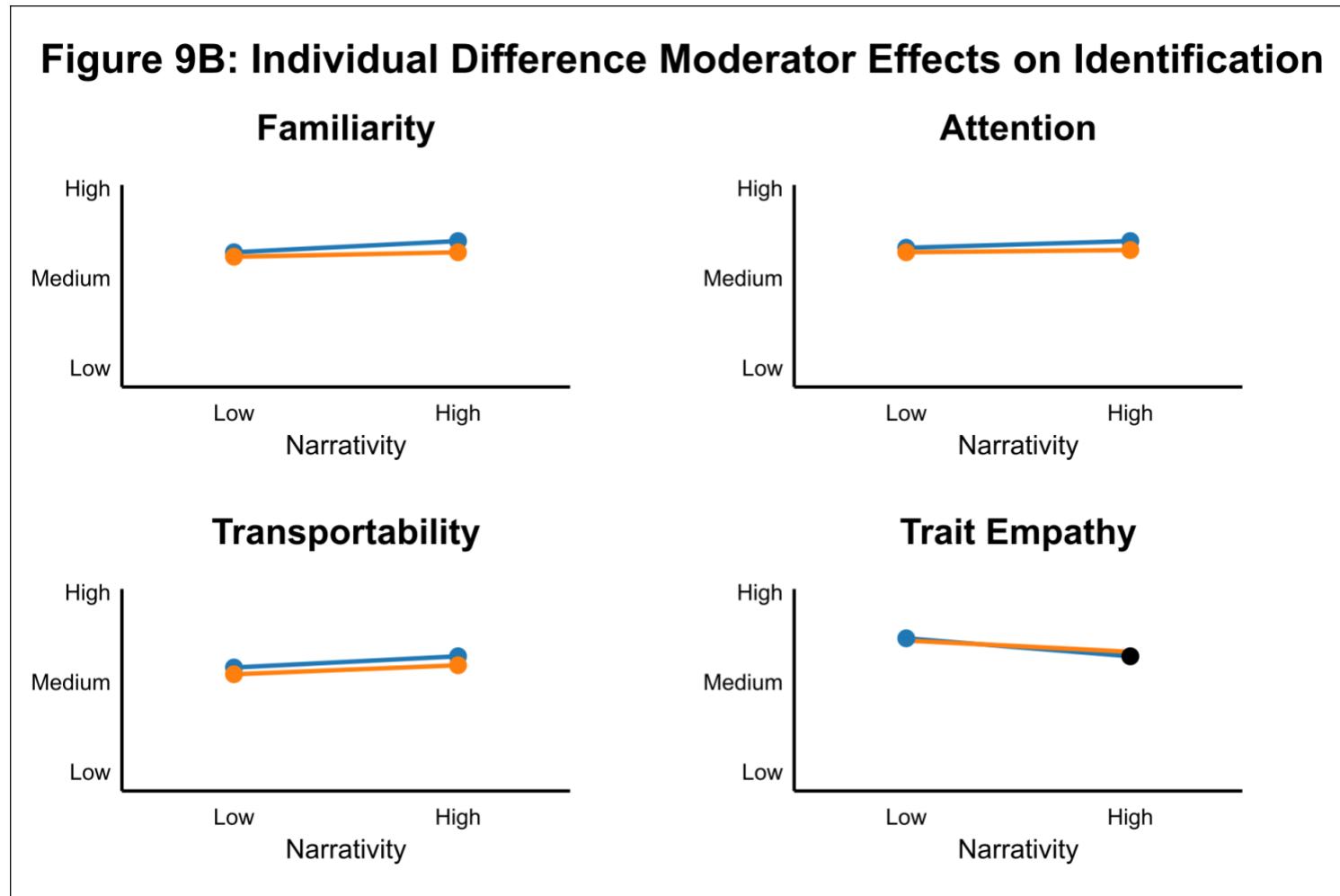


Figure 10. Threat severity moderator effects (non-significant).

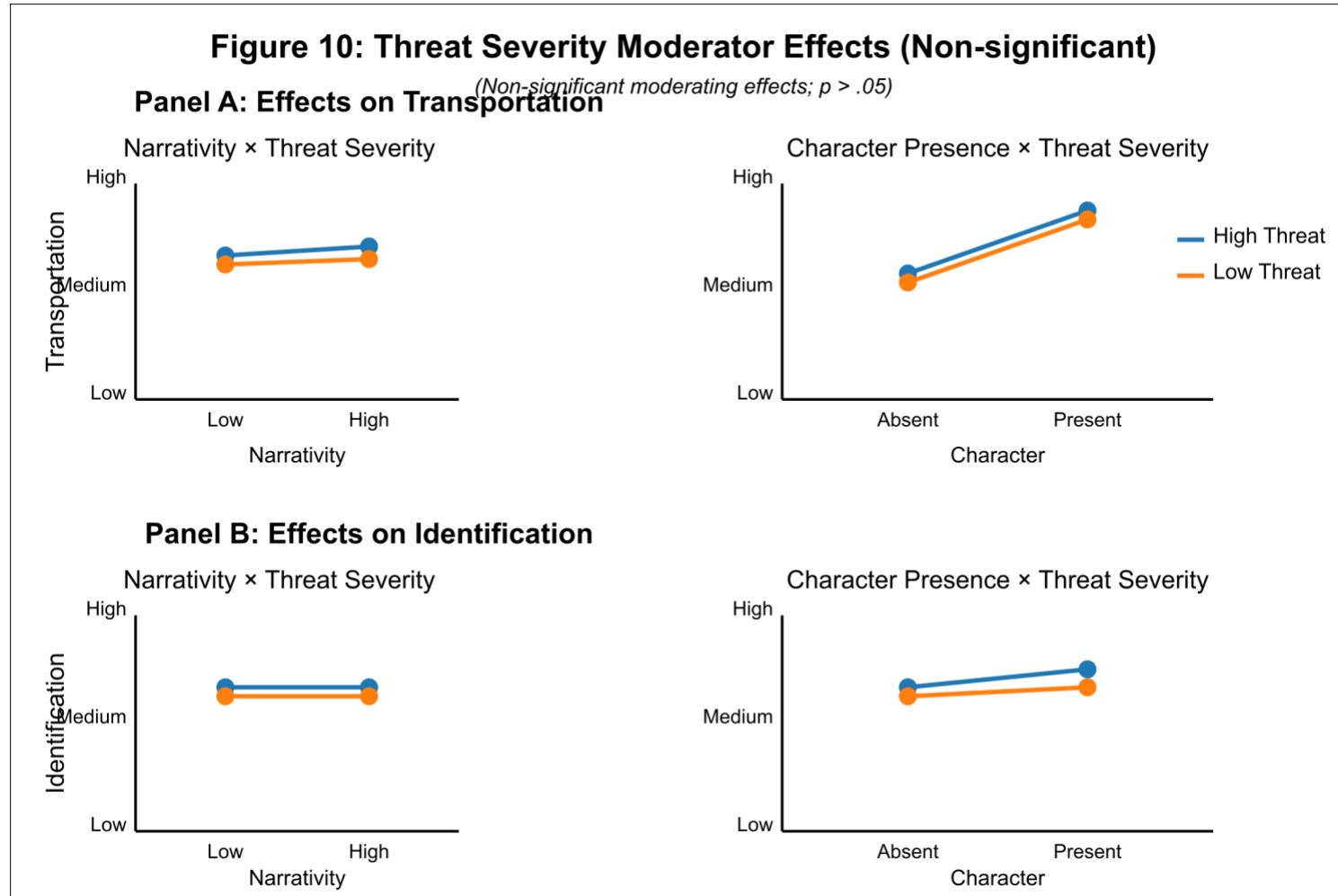


Figure 11. Differential effects of transportation and identification on resistance processes.

**Figure 11: Differential Effects of Transportation
and Identification on Resistance Processes**

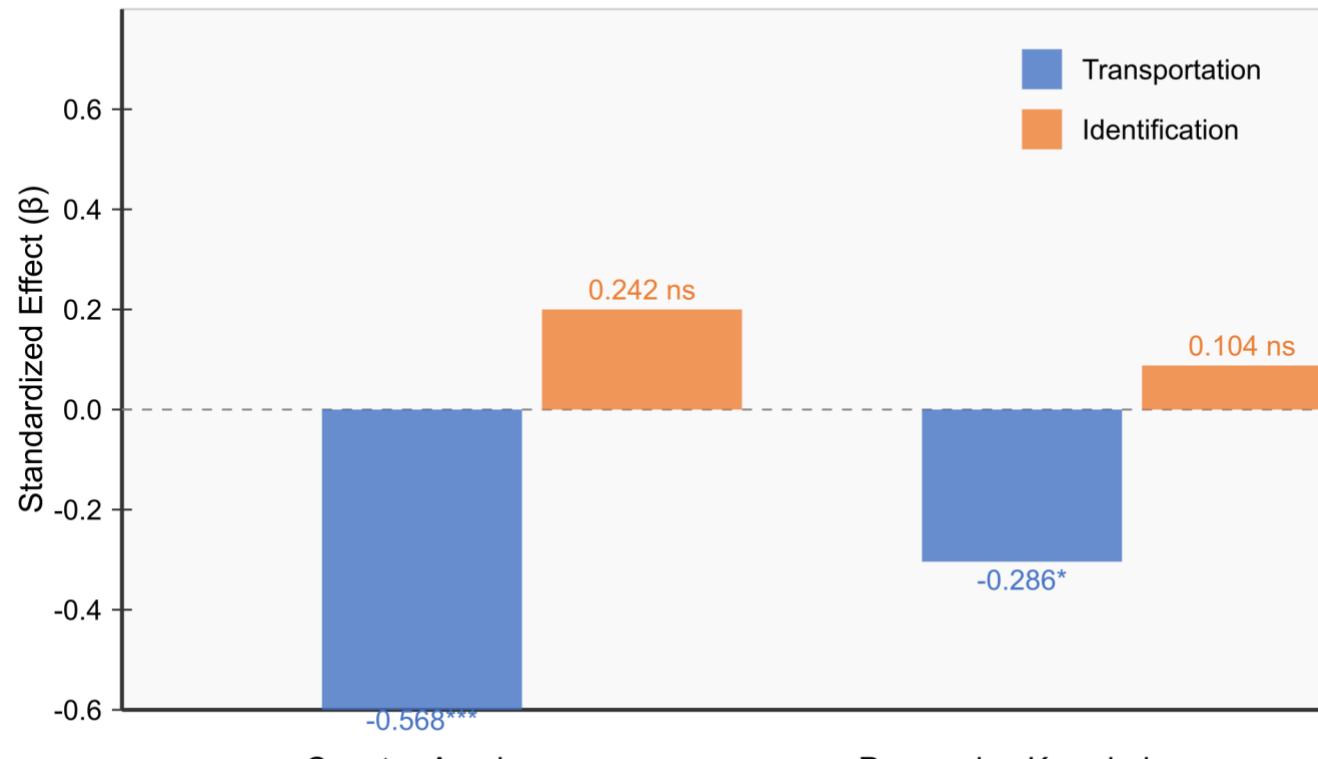


Figure 12. Effects of transportation and identification on outcomes.

Figure 12: Effects of Transportation and Identification on Outcomes

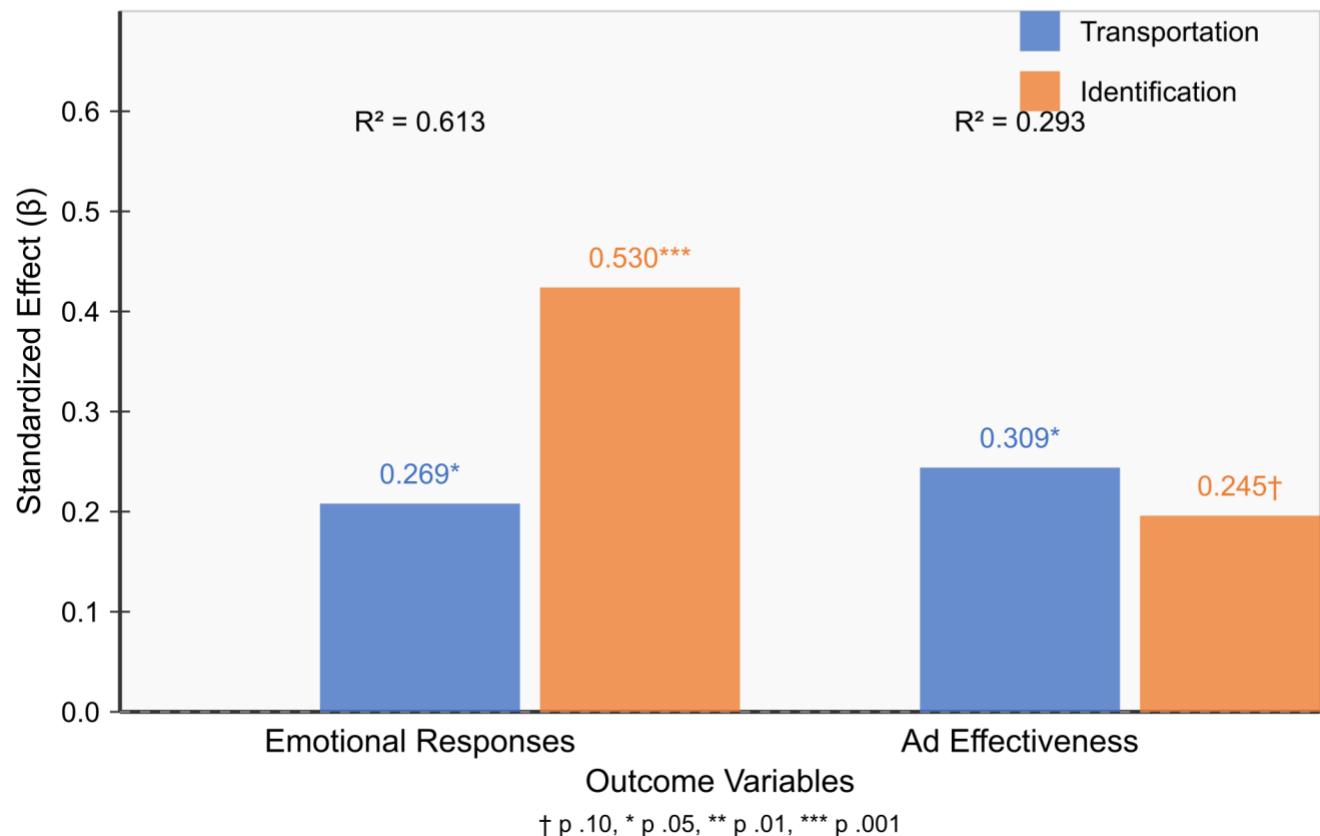


Figure 13. Healthcare attitudes moderate the effect of transportation on ad effectiveness.

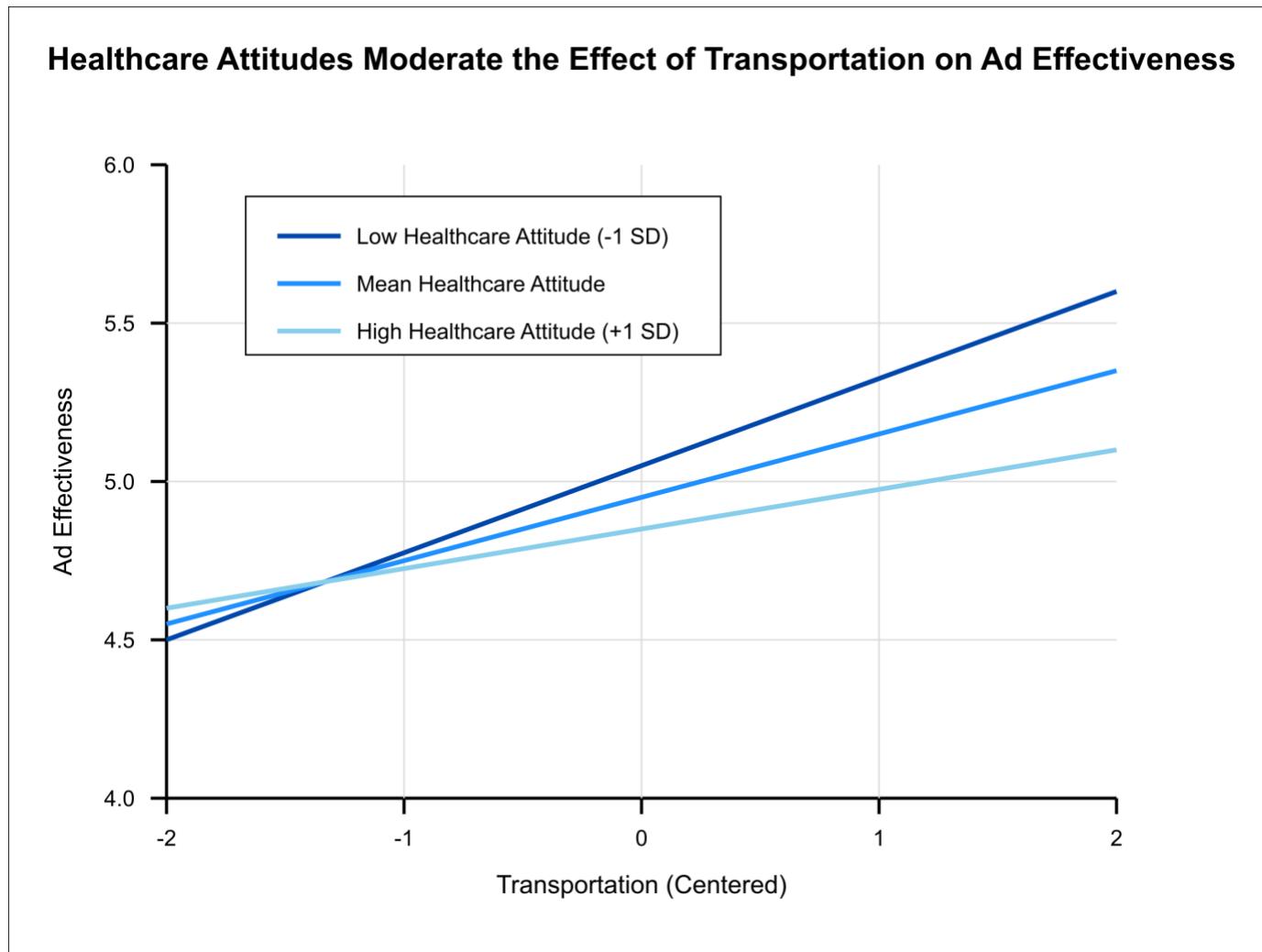


Figure 14. Healthcare attitudes moderate the effect of identification on ad effectiveness.

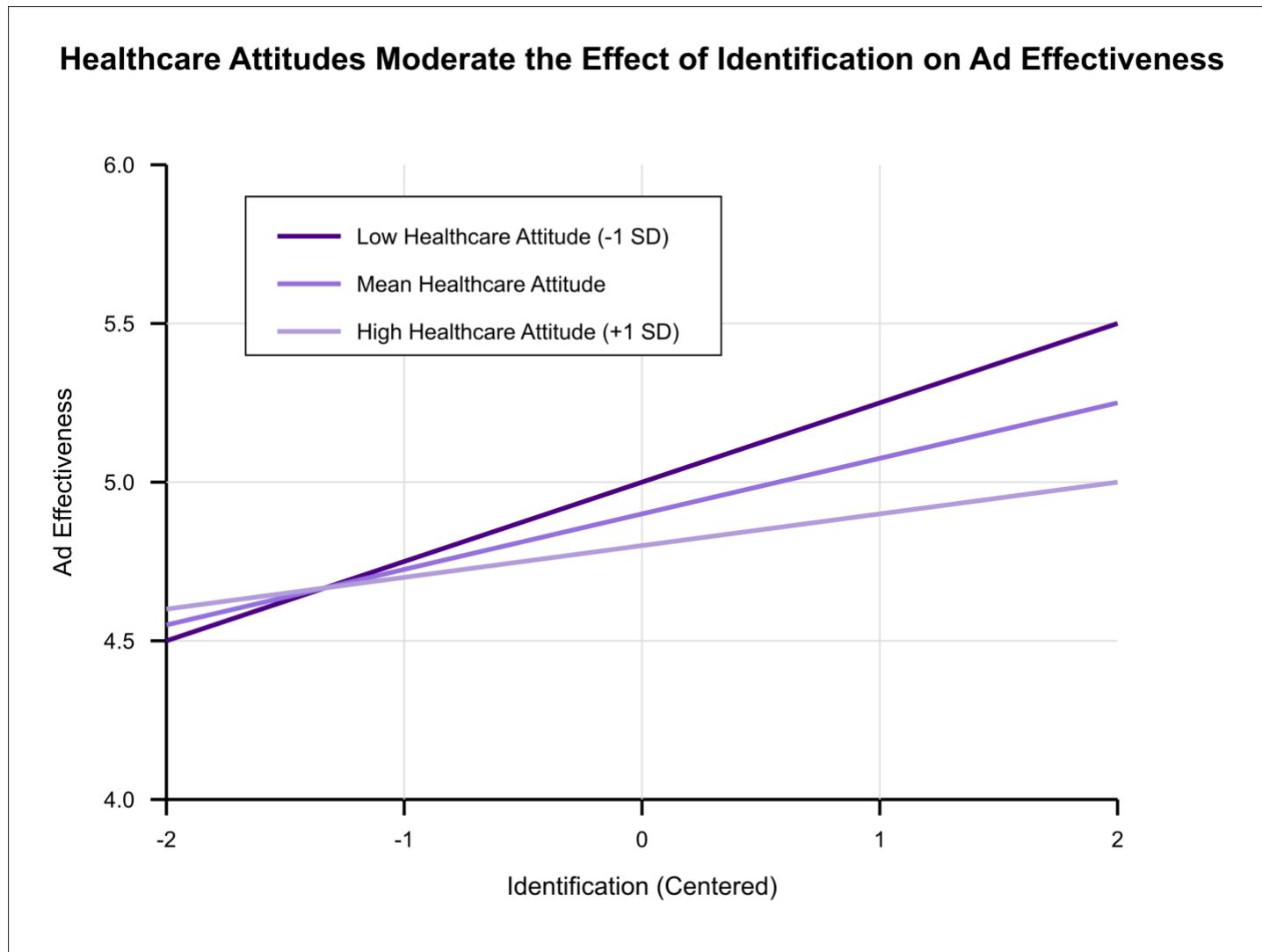
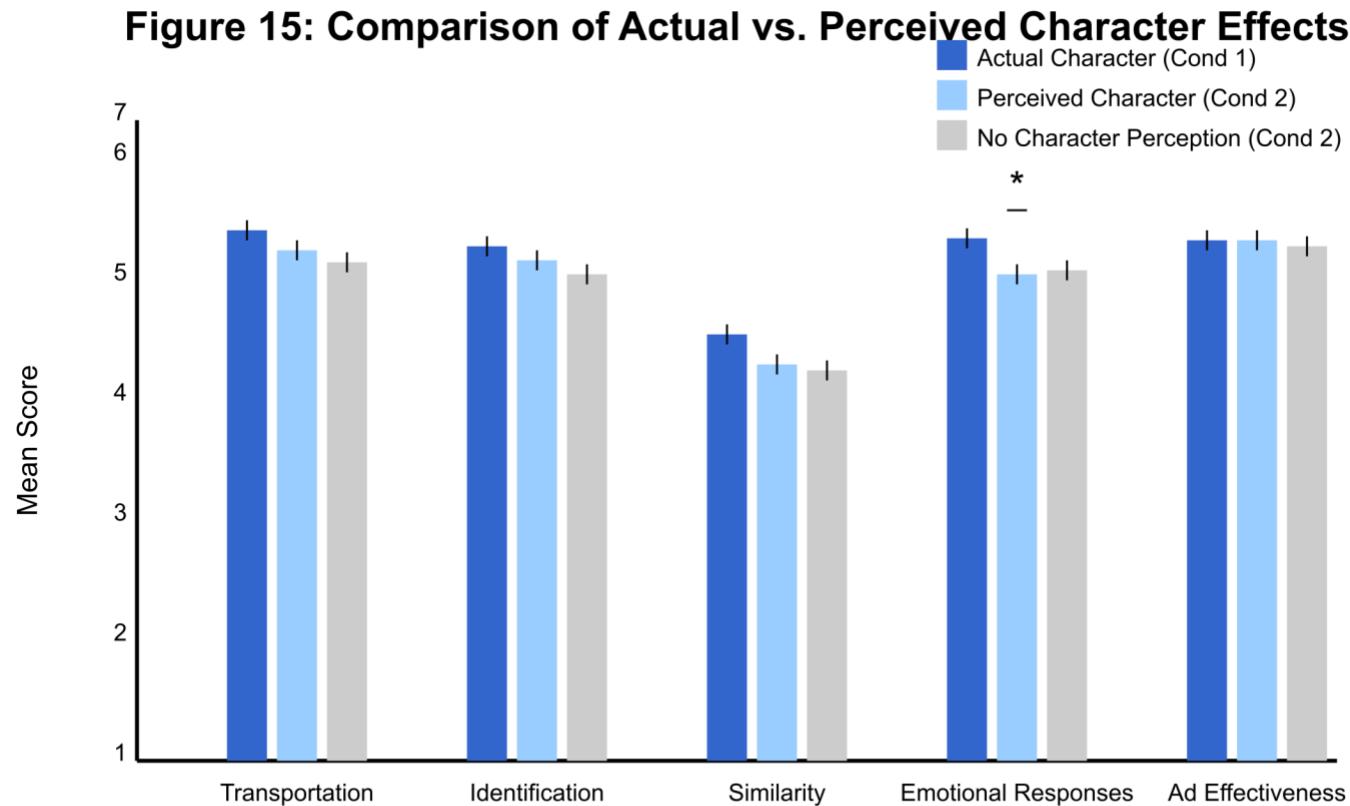


Figure 15. Comparison of actual vs perceived character effects.



* p < 0.05, indicating significant difference between actual character presence and perceived character

All measures on 7-point scales. Error bars represent standard errors.

Figure 16. Patient Story Advertising Model (PSAM).

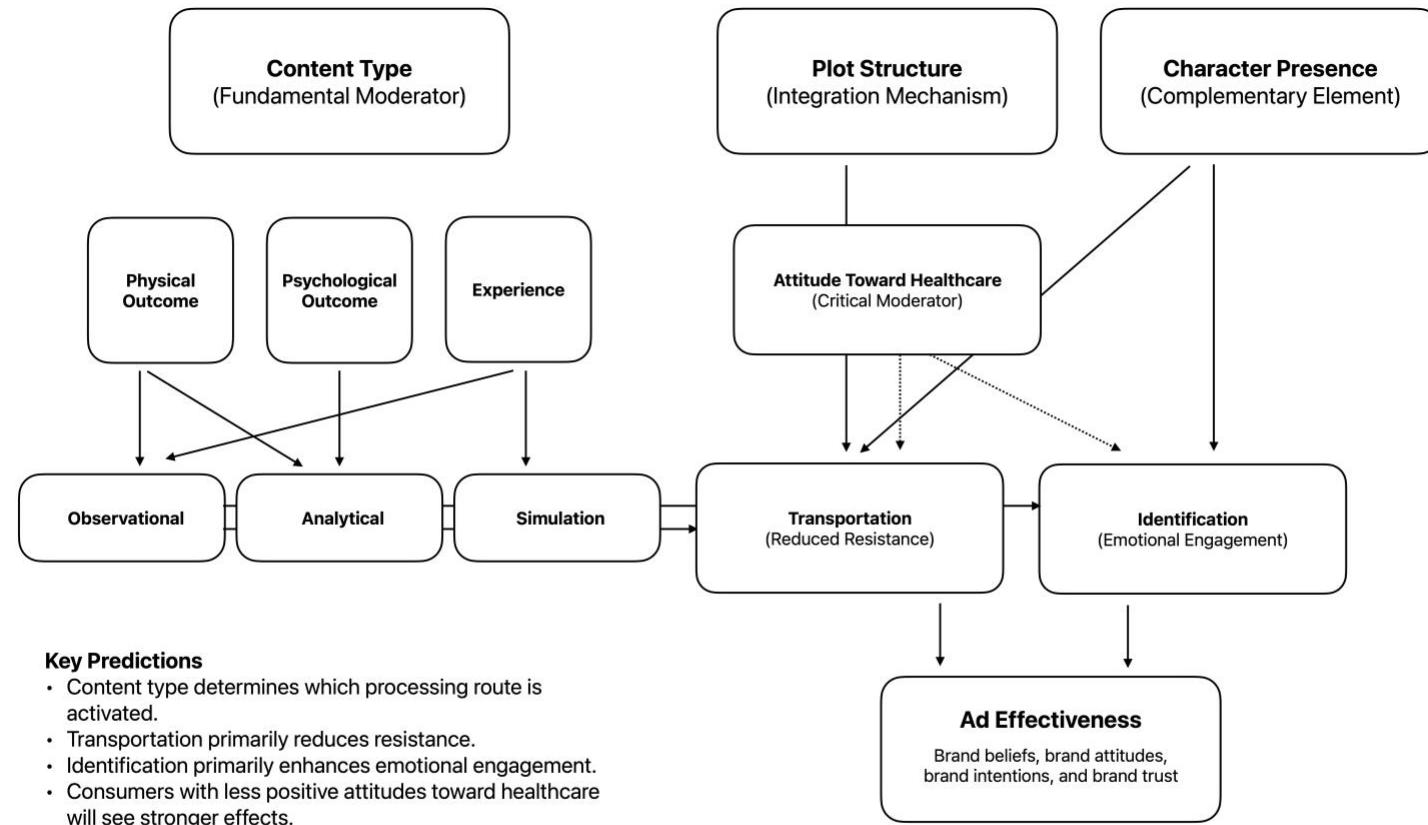


Figure 16. Patient Story Advertising Model (PSAM)

APPENDICES

Appendix A: Stimuli

Study 1

Condition 1: Physical Outcome Content + Identifiable Character

Tests showed chemotherapy and radiation shrank Sarah Mitchell's tumor by 40 percent.

Next, she had robotic surgery to remove the remaining tumor and affected lymph nodes.

The surgery included a temporary ileostomy to allow for healing. After recovery, Sarah, age 42, had a second surgery to reverse the ileostomy.

“When Dr. Chen showed me those first clear scans, I just broke down crying,” Sarah said. “After everything my body had been through, seeing that evidence—knowing the treatment worked—it made every hard day worth it.”

Today, two years later, all follow-up scans remain clear. Sarah’s port has been removed, and she’s gradually regained her strength. She started with walks around the block, then walked longer distances each week. Last month, she completed a 5K race for cancer research, something she hadn’t imagined possible during treatment.

Condition 2: Physical Outcome Content + No Identifiable Character

Tests show chemotherapy and radiation shrink patients’ tumors by 40 percent.

Next, patients have robotic surgery to remove the remaining tumor and affected lymph nodes. The surgery includes a temporary ileostomy to allow for healing. After recovery, patients have a second surgery to reverse the ileostomy.

When Dr. Chen shows them those first clear scans, patients just break down crying. After everything their body has been through, seeing that evidence—knowing the treatment worked—it makes every hard day worth it.

Today, two years later, all follow-up scans remain clear. Patients' ports have been removed, and they've gradually regained their strength. Patients start with walks around the block, then walk longer distances each week. Some patients even complete 5K races for cancer research, something they hadn't imagined possible during treatment.

Condition 3: Psychological Outcome Content + Identifiable Character

Sarah Mitchell, age 42, has become an advocate for cancer screening and volunteers with local cancer support groups, sharing her story with newly diagnosed patients.

"This journey has changed me in profound ways," Sarah said. "Before cancer, I was always rushing through life, focused on the next task. Now I understand what truly matters. I used to check emails during Emma's soccer games—now my phone stays in my purse. Each moment with my family feels like a gift."

When patients reach out to Sarah, she tells them about both the challenges and the hope ahead.

"I'm living proof that you can survive this disease," Sarah said. "While I wouldn't wish cancer on anyone, I've found strength I never knew I had. This experience has given me a deeper appreciation for life."

Condition 4: Psychological Outcome Content + No Identifiable Character

Patients become advocates for cancer screening and volunteer with local cancer support groups, sharing their stories with newly diagnosed patients.

This journey changes patients in profound ways. Before cancer, they always rushed through life, focused on the next task. Now they understand what truly matters. They used to check emails during family members' events. Now their phones stay put away. Each moment with their family feels like a gift.

When newly diagnosed patients reach out to them, the patients tell them about both the challenges and the hope ahead.

Patients are living proof that newly diagnosed patients can survive this disease. While they wouldn't wish cancer on anyone, they've found strength they never knew they had. This experience gives them a deeper appreciation for life.

Condition 5: Experience Content + Identifiable Character

The initial treatment tested Sarah Mitchell, age 42, in ways she never imagined.

The combination of chemotherapy and radiation was the hardest part, Sarah said. She had radiation therapy five days a week for six weeks. The treatments left her exhausted, and the side effects built up over time. "Some days, every cell in my body felt like it was at war," Sarah said. "I had constant nausea, and the metallic taste in my mouth made even my favorite treat—my morning coffee—unpleasant."

Each chemo session meant sitting in the infusion chair for three hours while medication dripped through her port. Her husband, Mark, would sit quietly beside her, holding her hand when the chills hit. The nurses were attentive, checking her vital signs and bringing warm blankets. She'd close her eyes and try to rest, the fatigue often overwhelming.

Condition 6: Experience Content + No Identifiable Character

The initial treatment tests patients in ways they never imagined.

The combination of chemotherapy and radiation is the hardest part, patients say. They have radiation therapy five days a week for six weeks. The treatments leave them exhausted, and the side effects build up over time. Patients say that some days it feels like every cell in their body is at war. They have constant nausea, and the metallic taste in their mouth makes even their favorite treat—such as morning coffee—unpleasant.

Each chemo session means sitting in the infusion chair for three hours while medication drips through their ports. Family members sit quietly beside them, holding their hands when the chills hit. The nurses are attentive, checking their vital signs and bringing warm blankets. Patients close their eyes and try to rest, the fatigue often overwhelming.

Study 2

Condition 1: High Narrativity + Identifiable Character

Life Changed in an Instant: Sarah Mitchell's Story

Sarah Mitchell never expected a routine doctor's appointment to change her life. At 42, she was busy with her career as an architect and enjoying life with her husband, Mark, and their 10-year-old daughter, Emma. Between managing design projects and attending Emma's soccer games, Sarah's days were full. When she started experiencing abdominal discomfort and noticing blood in her stool, she initially blamed stress and her irregular eating schedule.

After a few months of worsening symptoms and unexplained weight loss, Sarah finally mentioned it during her annual physical. Her doctor immediately scheduled a colonoscopy. Sarah was still groggy after the procedure when the gastroenterologist said the test found a large tumor. The biopsy confirmed stage 3 colorectal cancer—it had spread to nearby lymph nodes.

"I kept thinking about Emma," Sarah said. "Would I see her graduate high school? Get married? I couldn't bear the thought of not being there for those moments."

After researching treatment options, Sarah and Mark chose University Medical Center. From their first meeting with Dr. Michael Chen, her medical oncologist, Sarah knew

they'd made the right decision. Dr. Chen worked with a team that included a radiation oncologist, surgeon, and other specialists to create Sarah's treatment plan.

"When we met Dr. Chen, I could tell after 10 minutes that he knew exactly what we were facing," Sarah said. "He didn't just see my cancer—he saw me as a person, a mother, someone with a life beyond this diagnosis."

Dr. Chen recommended Sarah undergo chemotherapy and radiation first to shrink her tumor and to reduce the chances of recurrence. This initial treatment would then be followed by minimally invasive surgery to remove the tumor and affected lymph nodes. The initial treatment tested Sarah in ways she never imagined.

The combination of chemotherapy and radiation was the hardest part, Sarah said. She had radiation therapy five days a week for six weeks. The treatments left her exhausted, and the side effects built up over time. "Some days, every cell in my body felt like it was at war," Sarah said. "I had constant nausea, and the metallic taste in my mouth made even my favorite treat—my morning coffee—unpleasant."

Each chemo session meant sitting in the infusion chair for three hours while medication dripped through her port. Mark would sit quietly beside her, holding her hand when the chills hit. The nurses were attentive, checking her vital signs and bringing warm blankets. She'd close her eyes and try to rest, the fatigue often overwhelming.

Tests showed chemotherapy and radiation shrank Sarah's tumor by 40 percent. Next, she had robotic surgery to remove the remaining tumor and affected lymph nodes. The surgery included a temporary ileostomy to allow for healing. After recovery, Sarah had a second surgery to reverse the ileostomy.

“When Dr. Chen showed me those first clear scans, I just broke down crying,” Sarah said. “After everything my body had been through, seeing that evidence—knowing the treatment worked—it made every hard day worth it.”

Today, two years later, all follow-up scans remain clear. Sarah’s port has been removed, and she’s gradually regained her strength. She started with walks around the block, then walked longer distances each week. Last month, she completed a 5K race for cancer research, something she hadn’t imagined possible during treatment.

Sarah has become an advocate for cancer screening and volunteers with local cancer support groups, sharing her story with newly diagnosed patients.

“This journey has changed me in profound ways,” Sarah said. “Before cancer, I was always rushing through life, focused on the next task. Now I understand what truly matters. I used to check emails during Emma’s soccer games—now my phone stays in my purse. Each moment with my family feels like a gift.”

When patients reach out to Sarah, she tells them about both the challenges and the hope ahead.

“I’m living proof that you can survive this disease,” Sarah said. “While I wouldn’t wish cancer on anyone, I’ve found strength I never knew I had. This experience has given me a deeper appreciation for life.”

Condition 2: High Narrativity, No Identifiable Character

Lives Changed in an Instant: Patients’ Stories

Patients never expect a routine doctor’s appointment to change their life. They are busy with their careers and enjoying life with their families. Between managing work and attending family events, patients’ days are full. When they start experiencing abdominal

discomfort and noticing blood in their stool, they initially blame stress and their irregular eating schedules.

After a few months of worsening symptoms and unexplained weight loss, they finally mention it during their annual physicals. Their doctors immediately schedule colonoscopies. Patients are still groggy after the procedure when the gastroenterologist says the test found a large tumor. The biopsy confirms stage 3 colorectal cancer—it has spread to nearby lymph nodes.

Patients keep thinking about their families. Will they see their children graduate high school? Get married? They can't bear the thought of not being there for those moments.

After researching treatment options, patients choose University Medical Center. From their first meeting with Dr. Michael Chen, medical oncologist, patients know they've made the right decision. Dr. Chen works with a team that includes a radiation oncologist, surgeon, and other specialists to create patients' treatment plans.

When patients meet Dr. Chen, they can tell after 10 minutes that he knows exactly what they are facing. He doesn't just see their cancer—he sees them as people with a life beyond this diagnosis.

Dr. Chen recommends patients undergo chemotherapy and radiation first to shrink their tumors and to reduce the chances of recurrence. This initial treatment is then followed by minimally invasive surgery to remove the tumors and affected lymph nodes.

The initial treatment tests patients in ways they never imagined.

The combination of chemotherapy and radiation is the hardest part, patients say. They have radiation therapy five days a week for six weeks. The treatments leave them exhausted, and the side effects build up over time. Patients say that some days it feels like

every cell in their body is at war. They have constant nausea, and the metallic taste in their mouth makes even their favorite treat—such as morning coffee—unpleasant. Each chemo session means sitting in the infusion chair for three hours while medication drips through their ports. Family members sit quietly beside them, holding their hands when the chills hit. The nurses are attentive, checking their vital signs and bringing warm blankets. Patients close their eyes and try to rest, the fatigue often overwhelming. Tests show chemotherapy and radiation shrink patients' tumors by 40 percent. Next, patients have robotic surgery to remove the remaining tumor and affected lymph nodes. The surgery includes a temporary ileostomy to allow for healing. After recovery, patients have a second surgery to reverse the ileostomy.

When Dr. Chen shows them those first clear scans, patients just break down crying. After everything their body has been through, seeing that evidence—knowing the treatment worked—it makes every hard day worth it.

Today, two years later, all follow-up scans remain clear. Patients' ports have been removed, and they've gradually regained their strength. Patients start with walks around the block, then walk longer distances each week. Some patients even complete 5K races for cancer research, something they hadn't imagined possible during treatment. Patients become advocates for cancer screening and volunteer with local cancer support groups, sharing their stories with newly diagnosed patients.

This journey changes patients in profound ways. Before cancer, they always rushed through life, focused on the next task. Now they understand what truly matters. They used to check emails during family members' events. Now their phones stay put away. Each moment with their family feels like a gift.

When newly diagnosed patients reach out to them, the patients tell them about both the challenges and the hope ahead.

Patients are living proof that newly diagnosed patients can survive this disease. While they wouldn't wish cancer on anyone, they've found strength they never knew they had. This experience gives them a deeper appreciation for life.

Condition 3: Low Narrativity, Identifiable Character

Life Changed in an Instant: Sarah Mitchell's Story

The initial treatment tested Sarah Mitchell in ways she never imagined.

The combination of chemotherapy and radiation was the hardest part, Sarah said. She had radiation therapy five days a week for six weeks. The treatments left her exhausted, and the side effects built up over time. “Some days, every cell in my body felt like it was at war,” Sarah said. “I had constant nausea, and the metallic taste in my mouth made even my favorite treat—my morning coffee—unpleasant.”

Each chemo session meant sitting in the infusion chair for three hours while medication dripped through her port. Mark would sit quietly beside her, holding her hand when the chills hit. The nurses were attentive, checking her vital signs and bringing warm blankets. She'd close her eyes and try to rest, the fatigue often overwhelming.

Sarah has become an advocate for cancer screening and volunteers with local cancer support groups, sharing her story with newly diagnosed patients.

“This journey has changed me in profound ways,” Sarah said. “Before cancer, I was always rushing through life, focused on the next task. Now I understand what truly matters. I used to check emails during Emma’s soccer games—now my phone stays in my purse. Each moment with my family feels like a gift.”

When patients reach out to Sarah, she tells them about both the challenges and the hope ahead.

“I’m living proof that you can survive this disease,” Sarah said. “While I wouldn’t wish cancer on anyone, I’ve found strength I never knew I had. This experience has given me a deeper appreciation for life.”

Sarah never expected a routine doctor’s appointment to change her life. At 42, she was busy with her career as an architect and enjoying life with her husband, Mark, and their 10-year-old daughter, Emma. Between managing design projects and attending Emma’s soccer games, Sarah’s days were full. When she started experiencing abdominal discomfort and noticing blood in her stool, she initially blamed stress and her irregular eating schedule.

After a few months of worsening symptoms and unexplained weight loss, Sarah finally mentioned it during her annual physical. Her doctor immediately scheduled a colonoscopy. Sarah was still groggy after the procedure when the gastroenterologist said the test found a large tumor. The biopsy confirmed stage 3 colorectal cancer—it had spread to nearby lymph nodes.

“I kept thinking about Emma,” Sarah said. “Would I see her graduate high school? Get married? I couldn’t bear the thought of not being there for those moments.”

Tests showed chemotherapy and radiation shrank Sarah’s tumor by 40 percent. Next, she had robotic surgery to remove the remaining tumor and affected lymph nodes. The surgery included a temporary ileostomy to allow for healing. After recovery, Sarah had a second surgery to reverse the ileostomy.

“When Dr. Chen showed me those first clear scans, I just broke down crying,” Sarah said. “After everything my body had been through, seeing that evidence—knowing the treatment worked—it made every hard day worth it.”

Today, two years later, all follow-up scans remain clear. Sarah’s port has been removed, and she’s gradually regained her strength. She started with walks around the block, then walked longer distances each week. Last month, she completed a 5K race for cancer research, something she hadn’t imagined possible during treatment.

After researching treatment options, Sarah and Mark chose University Medical Center. From their first meeting with Dr. Michael Chen, her medical oncologist, Sarah knew they’d made the right decision. Dr. Chen worked with a team that included a radiation oncologist, surgeon, and other specialists to create Sarah’s treatment plan.

“When we met Dr. Chen, I could tell after 10 minutes that he knew exactly what we were facing,” Sarah said. “He didn’t just see my cancer—he saw me as a person, a mother, someone with a life beyond this diagnosis.”

Dr. Chen recommended Sarah undergo chemotherapy and radiation first to shrink her tumor and to reduce the chances of recurrence. This initial treatment would then be followed by minimally invasive surgery to remove the tumor and affected lymph nodes.

Condition 4: Low Narrativity, No Identifiable Character

Lives Changed in an Instant: Patients’ Stories

The initial treatment tests patients in ways they never imagined.

The combination of chemotherapy and radiation is the hardest part, patients say. They have radiation therapy five days a week for six weeks. The treatments leave them exhausted, and the side effects build up over time. Patients say that some days it feels like

every cell in their body is at war. They have constant nausea, and the metallic taste in their mouth makes even their favorite treat—such as morning coffee—unpleasant. Each chemo session means sitting in the infusion chair for three hours while medication drips through their ports. Family members sit quietly beside them, holding their hands when the chills hit. The nurses are attentive, checking their vital signs and bringing warm blankets. Patients close their eyes and try to rest, the fatigue often overwhelming. Patients become advocates for cancer screening and volunteer with local cancer support groups, sharing their stories with newly diagnosed patients.

This journey changes patients in profound ways. Before cancer, they always rushed through life, focused on the next task. Now they understand what truly matters. They used to check emails during family members' events. Now their phones stay put away.

Each moment with their family feels like a gift.

When newly diagnosed patients reach out to them, the patients tell them about both the challenges and the hope ahead.

Patients are living proof that newly diagnosed patients can survive this disease. While they wouldn't wish cancer on anyone, they've found strength they never knew they had. This experience gives them a deeper appreciation for life.

Patients never expect a routine doctor's appointment to change their life. They are busy with their careers and enjoying life with their families. Between managing work and attending family events, patients' days are full. When they start experiencing abdominal discomfort and noticing blood in their stool, they initially blame stress and their irregular eating schedules.

After a few months of worsening symptoms and unexplained weight loss, they finally mention it during their annual physicals. Their doctors immediately schedule colonoscopies. Patients are still groggy after the procedure when the gastroenterologist says the test found a large tumor. The biopsy confirms stage 3 colorectal cancer – it has spread to nearby lymph nodes.

Patients keep thinking about their families. Will they see their children graduate high school? Get married? They can't bear the thought of not being there for those moments. Tests show chemotherapy and radiation shrink patients' tumors by 40 percent. Next, patients have robotic surgery to remove the remaining tumor and affected lymph nodes. The surgery includes a temporary ileostomy to allow for healing. After recovery, patients have a second surgery to reverse the ileostomy.

When Dr. Chen shows them those first clear scans, patients just break down crying. After everything their body has been through, seeing that evidence—knowing the treatment worked—it makes every hard day worth it.

Today, two years later, all follow-up scans remain clear. Patients' ports have been removed, and they've gradually regained their strength. Patients start with walks around the block, then walk longer distances each week. Some patients even complete 5K races for cancer research, something they hadn't imagined possible during treatment.

After researching treatment options, patients choose University Medical Center. From their first meeting with Dr. Michael Chen, medical oncologist, patients know they've made the right decision. Dr. Chen works with a team that includes a radiation oncologist, surgeon, and other specialists to create patients' treatment plans.

When patients meet Dr. Chen, they can tell after 10 minutes that he knows exactly what they are facing. He doesn't just see their cancer—he sees them as people with a life beyond this diagnosis.

Dr. Chen recommends patients undergo chemotherapy and radiation first to shrink their tumors and to reduce the chances of recurrence. This initial treatment is then followed by minimally invasive surgery to remove the tumors and affected lymph nodes.

Appendix B: Measures

Pre-Exposure Measures

Individual Differences

All participants were shown these measures. Unless otherwise noted, participants were asked to indicate the extent to which they agree or disagree with the statements, with 1 = strongly disagree and 7 = strongly agree.

Transportability (Mazzocco & Green, 2011)

1. I am mentally involved in stories while reading them.
2. Stories affect me emotionally.
3. I can become so absorbed in a story that I forget the world around me.
4. Characters in stories can seem real to me.

Trait Empathy (adapted from Davis, 1983)

Perspective Taking (Cognitive Empathy)

1. I try to look at everybody's side of a disagreement before I make a decision.
2. I sometimes try to understand my friends better by imagining how things look from their perspective.
3. When I'm upset at someone, I usually try to put myself in their shoes for a while.

Empathic Concern (Affective Empathy)

4. I often have tender, concerned feelings for people less fortunate than me.
5. I would describe myself as a pretty soft-hearted person.
6. When I see someone being taken advantage of, I feel kind of protective toward them.

Healthcare Involvement

All participants were shown these measures. Unless otherwise noted, participants were asked to indicate the extent to which they agree or disagree with the statements, with 1 = strongly disagree and 7 = strongly agree.

Prior attitudes toward healthcare

1. Most healthcare organizations are trustworthy.
2. Most healthcare organizations have patients' best interests in mind.
3. Most healthcare organizations provide high quality care.

Healthcare provider status (Andersen, 1995)

Do you have a particular doctor's office, clinic, healthcare center, or other place that you usually go if you are sick or need advice about your health?

1. Yes
2. No
3. Other (please specify)
4. Prefer not to answer

Note. Multiple choice

Healthcare access (Andersen, 1995)

1. I have reliable transportation to healthcare facilities.
2. I can easily take time off work for medical appointments.
3. I have the financial means to pay for healthcare.

Health insurance status (Park et al., 2023)

What type of health insurance do you have?

1. No insurance
2. Employer-based insurance

3. Government-run marketplace
4. Medicare
5. Income-based government medical assistance such as Medicaid and CHIP
6. Qualified public insurance (e.g. VA, tribal, etc.)
7. Other (please specify)
8. Prefer not to answer

Note. Multiple choice

Health status (Andersen, 1995)

In general, how would you describe your current health status?

1. Poor
2. Fair
3. Good
4. Very good
5. Excellent
6. Prefer not to answer

Note. Multiple choice

Quality of life (Andersen, 1995)

Considering your life as a whole, please rate your overall quality of life today.

1. Poor
2. Fair
3. Good
4. Very good
5. Excellent

6. Prefer not to answer

Note. Multiple choice

Cancer Involvement

All participants were shown these measures. Unless otherwise noted, participants were asked to indicate the extent to which they agree or disagree with the statements, with 1 = strongly disagree and 7 = strongly agree.

Familiarity (Green, 2004)

Knowledge-based familiarity

1. I know a lot about cancer.

Experience-based familiarity

2. I can relate to stories about cancer based on my own experiences.

Genre-based familiarity

3. Stories about cancer are familiar to me.

Threat Severity (adapted from Witte et al., 1996)

1. Cancer is severe.
2. Cancer is serious.
3. Cancer is significant.

Post-Exposure Measures

Story Responses

Participants in experimental conditions were shown these measures. Unless otherwise noted, participants were asked to indicate the extent to which they agree or disagree with the statements, with 1 = strongly disagree and 7 = strongly agree.

Content type check (Study 1 only)

This story primarily focuses on...

1. Concrete medical outcomes and treatment effectiveness.
2. Personal transformation and changes in life perspective.
3. Day-to-day experiences of going through treatment.

Note. Multiple choice

Eudaimonic appreciation (Hamby et al., 2023) (Study 1 only)

1. I found this story to be very meaningful.
2. I was moved by this story.
3. The story was thought provoking.

Character presence check

This story describes...

1. One specific patient's experience.
2. Experiences of patients in general.

Note. Multiple choice

Narrativity check (Study 2 only)

1. The story presented events in chronological order.
2. The events in the story connected to each other in a clear way.
3. The story flowed smoothly from beginning to end.

Perceived realism story quality check (Shapiro & Kim, 2012)

1. If the events in this story were to happen to the typical person, they would make sense.

Perceived message credibility story quality check (Zhao et al., 2023)

1. The story is believable.

2. The story is trustworthy.
3. The story is accurate.
4. The story is biased. (reverse-coded)
5. The story is complete.

Open-ended feedback (Pre-tests only)

1. What do you perceive as the main message of this story?
2. What stands out to you about this story?
3. How does this message make you feel?

Note. Text entry

Attention (Green & Brock, 2000)

Focused attention

1. I paid close attention to the story.
2. I concentrated fully while reading/watching the story.
3. I was not distracted while engaging with the story.

Distraction Indicators (reverse-coded):

4. I found it hard to stay focused on the story.
5. I was thinking about other things while reading/watching the story.
6. I was easily distracted during the story.

Transportation scale—short form (Appel et al., 2015)

1. I could picture myself in the scene of the events described in the story.
2. I was mentally involved in the story while reading it.
3. I wanted to learn how the story ended.
4. The story affected me emotionally.

5. While reading the story, I had a vivid image of the patient.
6. While reading the story, I had a vivid image of the story setting(s).

Identification (Huang & Fung, 2024)

Merging

1. While reading, I felt as if I were the patient.
2. I had the feeling I went through what the patient went through.
3. While I was reading, I thought like the patient.

Perspective taking

4. During reading, I imagined what it would be like to be in the position of the patient.
5. I imagined how I would act if I were the patient.
6. While I was reading, I pictured what it would be like for the patient to experience what was described.

Understanding

7. While I was reading, I understood what the patient was thinking.
8. I tend to understand the reasons why the patient does what they do.
9. I understood the patient's feelings or emotions.

Emotional involvement

10. I was concerned about what was happening to the patient.
11. When good things happened to the patient, I felt happy, but when negative things happened to the patient, I felt sad.
12. While reading the story, I wanted the patient to succeed in achieving their goals.

Eudaimonic symbolism (Hamby et al., 2023)

1. This story stands for something meaningful.
2. This story symbolizes something significant.
3. This story represents an important meaning.

Perceived similarity (Rimal & Morrison, 2006)

1. The patient in the story is similar to me in terms of the way they think.
2. The patient in the story is similar to me in terms of their life experiences.
3. The patient in the story is similar to me in terms of their overall outlook on life.

Emotional responses

While reading the story, I felt...

1. Hopeful
2. Inspired
3. Moved
4. Touched
5. Uplifted

Counter-arguing (Silvia, 2006) (Study 2 only)

1. I criticized the story while reading it.
2. I thought of points that went against what was being said in the story.
3. While reading the story, I was skeptical of what was being said.

Persuasion Knowledge (Ham et al., 2015) (Study 2 only)

Recognition of persuasive intent

1. This story is trying to influence my healthcare choices.
2. This story is an advertisement for the healthcare center.
3. The healthcare center is trying to persuade me through this story.

Skepticism toward tactics

4. The story manipulates emotions to promote the healthcare center.
5. The story presents a carefully selected patient experience.

The story leaves out negative experiences patients might have.

Affective forecasting (Shaffer et al., 2013)

I have a clear feeling about what it is like to:

1. Undergo these cancer treatments.
2. Be a patient of University Medical Center.

Ad effectiveness Outcomes

All participants were shown these measures. Unless otherwise noted, participants were asked to indicate the extent to which they agree or disagree with the statements, with 1 = strongly disagree and 7 = strongly agree.

Brand beliefs (Haslak & Mazis, 2003)

Complete each statement by choosing one of these options: all, almost all, most, about half, some, very few, or none. Matrix with 1 = none and 7 = all.

1. I believe the healthcare center improves health conditions for ... of its patients.
(Brand effectiveness)
2. I believe the healthcare center improves quality of life for ... of its patients.
(Brand meaning)
3. I believe ... of the healthcare center's patients have a good experience. (Brand experience)

Attitude toward the brand (Spears & Singh, 2004)

Please describe your overall feelings about the healthcare center.

1. Unappealing/appealing
2. Bad/good
3. Unpleasant/pleasant
4. Unfavorable/favorable
5. Unlikable/likable

Note. Semantic differential scale

Intentions (Kemp et al., 2017)

If the situation called for it, how likely would you be to:

Use the services of the healthcare center yourself?

1. Unlikely/likely
2. Improbable/probable
3. Definitely would not/definitely would

Recommend the services of the healthcare center to friends or loved ones?

4. Unlikely/likely
5. Improbable/probable
6. Definitely would not/definitely would

Note. Semantic differential scale

Brand trust (Zhao et al., 2023)

1. I trust the healthcare center.
2. I rely on the healthcare center.
3. The healthcare center is an honest healthcare center.
4. The healthcare center is safe.

Demographic Measures

Age. How old are you?

1. Younger than 18
2. 18-24
3. 25-34
4. 35-44
5. 45-54
6. 55 or older

Note. Multiple choice

Gender. With which gender do you identify?

1. Male
2. Female
3. Other (please specify)

Note. Multiple choice

Education level (Andersen, 1995; van Laer et al., 2014)

What is the highest level of education you have completed?

1. Some high school or less
2. High school diploma or GED
3. Some college, but no degree
4. Associate's or technical degree
5. Bachelor's degree
6. Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.)

Note. Multiple choice

Appendix C: Debriefing Statement

Thank you for your time spent taking this survey.

The purpose of this study is to examine the effects of different patient story content and format on consumer responses. If you viewed a story during this survey, there are a few things you should know. First, University Medical Center is not a real healthcare institution. The use of a fictitious healthcare center was necessary to ensure authentic responses to the story. Second, stories for this research were developed using generative artificial intelligence (AI) trained on real patient stories. This process was designed to maintain control necessary for research while ensuring the stories were realistic and engaging. Third, the story did not include complete information about colon cancer. For complete information, visit the American Cancer Society

at <https://www.cancer.org/cancer/types/colon-rectal-cancer.html>.

If you have any concerns about your participation or the data you provided during the study, please contact me (willetlj@missouri.edu), and I will be happy to discuss. If you have questions about your rights as a research participant or want to report a complaint, please contact the University of Missouri Institutional Review Board by phone 573-882-3181 or email irb@missouri.edu. Thanks again for participating in this study. By clicking “Next” below, you give permission to have your data included in the study and you will be redirected back to Prolific.

BIBLIOGRAPHY

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, 36(1), 1–10.

<https://doi.org/10.2307/2137284>

Angerer, S., Glätzle-Rützler, D., Mimra, W., Rittmannsberger, T., & Waibel, C. (2023). *The value of rating systems in healthcare credence goods markets* (SSRN Scholarly Paper No. 3965318). <https://doi.org/10.2139/ssrn.3965318>

Anthropic. (2024). Claude [Large language model]. <https://anthropic.com/clause>

Appel, M., Gnambs, T., Richter, T., & Green, M. C. (2015). The transportation scale—short form (TS–SF). *Media Psychology*, 18(2), 243–266.

<https://doi.org/10.1080/15213269.2014.987400>

Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., Klein, T. R., & Highberger, L. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology*, 72(1), 105–118. <https://doi.org/10.1037/0022-3514.72.1.105>

Bergkvist, L., & Rossiter, J. R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research*, 44(2), 175–184. <https://doi.org/10.1509/jmkr.44.2.175>

Berry, L. L., Keiningham, T., Aksoy, L., & Deming, K. A. (2020). When cancer centers mislead prospective patients. *JCO Oncology Practice*, 16(5), 219–222.

<https://doi.org/10.1200/JOP.19.00783>

Bigsby, E., Bigman, C. A., & Martinez Gonzalez, A. (2019). Exemplification theory: A review and meta-analysis of exemplar messages. *Annals of the International Communication Association*, 43(4), 273–296.

<https://doi.org/10.1080/23808985.2019.1681903>

Blumenthal, D., Campbell, E. G., & Weissman, J. S. (1997). The social missions of academic health centers. *New England Journal of Medicine*, 337(21), 1550–1553.

Braddock, K., & Dillard, J. P. (2016). Meta-analytic evidence for the persuasive effect of narratives on beliefs, attitudes, intentions, and behaviors. *Communication Monographs*, 83(4), 446–467. <https://doi.org/10.1080/03637751.2015.1128555>

Burns, M. E. (2015). Recruiting prospective students with stories: How personal stories influence the process of choosing a university. *Communication Quarterly*, 63(1), 99–118.

<https://doi.org/10.1080/01463373.2014.965838>

Cappella, J. N., & Li, Y. (2023). Principles of effective message design: A review and model of content and format features. *Asian Communication Research*, 20(3), 147–174.

<https://doi.org/10.20879/acr.2023.20.023>

Chapman, G. B., & Coups, E. J. (2006). Emotions and preventive health behavior: Worry, regret, and influenza vaccination. *Health Psychology*, 25(1), 82–90.

<https://doi.org/10.1037/0278-6133.25.1.82>

Chang, C. (2017). Methodological issues in advertising research: Current status, shifts, and trends. *Journal of Advertising*, 46(1), 2–20.

<https://doi.org/10.1080/00913367.2016.1274924>

Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81–93. <https://doi.org/10.1509/jmkg.65.2.81.18255>

Chen, M., & Bell, R. A. (2022). A meta-analysis of the impact of point of view on narrative processing and persuasion in health messaging. *Psychology & Health*, 37(5), 545–562. <https://doi.org/10.1080/08870446.2021.1894331>

Chen, M., Dong, Y., & Wang, J. (2024). A meta-analysis examining the role of character-recipient similarity in narrative persuasion. *Communication Research*, 51(1), 56–82.

<https://doi.org/10.1177/00936502231204834>

Cin, S. D., Zanna, M. P., & Fong, G. T. (2004). Narrative persuasion and overcoming resistance. In *Resistance and Persuasion*. Psychology Press.

Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass Communication and Society*, 4(3), 245–264.

https://doi.org/10.1207/S15327825MCS0403_01

Cohen, J. (2017). Defining identification: A theoretical look at the identification of audiences with media characters. In *Advances in Foundational Mass Communication Theories* (pp. 253–272). Routledge.

Cohen, J., & Klimmt, C. (2021). Stepping in and out of media characters: Identification and dynamic shifts in users' positioning toward entertainment messages. In P. Vorderer & C. Klimmt (Eds.), *The Oxford Handbook of Entertainment Theory*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190072216.013.15>

Collins, S. (2024, January 17). 2024 Cancer Facts & Figures Cancer. *American Cancer Society Research News*. <https://www.cancer.org/research/acs-research-news/facts-and-figures-2024.html>

Dahlstrom, M. F., Niederdeppe, J., Gao, L., & Zhu, X. (2017). Operational and conceptual trends in narrative persuasion research: Comparing health- and non-health-related contexts. *International Journal of Communication*, 11, 4865–4885.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. <https://doi.org/10.1037/0022-3514.44.1.113>

de Graaf, A., Sanders, J., & Hoeken, H. (2016). Characteristics of narrative interventions and health effects: A review of the content, form, and context of narratives in health-related narrative persuasion research. *Review of Communication Research*, 4, 88–131.

Delmas, C. (2014). Three reasons to ban advertising for health care services. *The American Journal of Bioethics*, 14(3), 51–52.

<https://doi.org/10.1080/15265161.2013.879958>

Dillard, A. J., Fagerlin, A., Cin, S. D., Zikmund-Fisher, B. J., & Ubel, P. A. (2010). Narratives that address affective forecasting errors reduce perceived barriers to colorectal

cancer screening. *Social Science & Medicine*, 71(1), 45–52.

<https://doi.org/10.1016/j.socscimed.2010.02.038>

Dutta-Bergman, M. J. (2004). Primary sources of health information: Comparisons in the domain of health attitudes, health cognitions, and health behaviors. *Health Communication*, 16(3), 273–288. https://doi.org/10.1207/S15327027HC1603_1

Editorial Policies. (n.d.). Taylor & Francis. Retrieved January 17, 2025, from
<https://authorservices.taylorandfrancis.com/editorial-policies/>

Ellis, E. M., Elwyn, G., Nelson, W. L., Scalia, P., Kobrin, S. C., & Ferrer, R. A. (2018). Interventions to engage affective forecasting in health-related decision making: A meta-analysis. *Annals of Behavioral Medicine*, 52(2), 157–174.

<https://doi.org/10.1093/abm/kax024>

Erdem, T., & Swait, J. (2004). Brand credibility, brand consideration, and choice. *Journal of Consumer Research*, 31(1), 191–198. <https://doi.org/10.1086/383434>

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>

Flesch, R. (1951). *How to test readability*. Harper.

Freling, T. H., Yang, Z., Saini, R., Itani, O. S., & Rashad Abualsamh, R. (2020). When poignant stories outweigh cold hard facts: A meta-analysis of the anecdotal bias.

Organizational Behavior and Human Decision Processes, 160, 51–67.

<https://doi.org/10.1016/j.obhdp.2020.01.006>

Gerrig, R. J. (1993). *Experiencing narrative worlds: On the psychological activities of reading*. Yale University Press.

Green, M. C. (2006). Narratives and cancer communication. *Journal of Communication*, 56(s1), S163–S183. <https://doi.org/10.1111/j.1460-2466.2006.00288.x>

Green, M. C. (2021). Transportation into narrative worlds. In L. B. Frank & P. Falzone (Eds.), *Entertainment-education behind the scenes: Case studies for theory and practice* (pp. 87–101). Springer International Publishing. https://doi.org/10.1007/978-3-030-63614-2_6

Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, 79(5), 701–721.

<https://doi.org/10.1037/0022-3514.79.5.701>

Green, M. C., & Brock, T. C. (2002). In the mind's eye: Transportation-imagery model of narrative persuasion. In *Narrative impact: Social and cognitive foundations* (pp. 315–341). Lawrence Erlbaum Associates Publishers.

Green, M. C., & Jenkins, K. M. (2014). Interactive narratives: Processes and outcomes in user-directed stories. *Journal of Communication*, 64(3), 479–500.

<https://doi.org/10.1111/jcom.12093>

Haase, N., Betsch, C., & Renkewitz, F. (2015). Source credibility and the biasing effect of narrative information on the perception of vaccination risks. *Journal of Health Communication*, 20(8), 920–929. <https://doi.org/10.1080/10810730.2015.1018605>

Ham, C.-D., & Nelson, M. R. (2016). The role of persuasion knowledge, assessment of benefit and harm, and third-person perception in coping with online behavioral advertising. *Computers in Human Behavior*, 62, 689–702.

<https://doi.org/10.1016/j.chb.2016.03.076>

Hamby, A., Tezer, A., & Escalas, J. E. (2023). Significant objects: How eudaimonic narratives enhance the value of featured products. *Journal of Advertising*, 52(3), 406–422. <https://doi.org/10.1080/00913367.2022.2066035>

Hastak, M., & Mazis, M. B. (2003). *The effect of consumer testimonials and disclosures on ad communication for a dietary supplement*. Federal Trade Commission.

<https://www.ftc.gov/reports/effect-consumer-testimonials-disclosures-ad-communication-dietary-supplement-endorsement-booklet>

Hlubocky, F. J., McFarland, D. F., Spears, P. A., Smith, L., Patten, B., Peppercorn, J., & Holcombe, R. (2020). Direct-to-consumer advertising for cancer centers and institutes: Ethical dilemmas and practical implications. *American Society of Clinical Oncology Educational Book*, 40, e207–e217. https://doi.org/10.1200/EDBK_279963

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>

Huang, K. Y., & Fung, H. H. (2024). Measuring identification with narrative characters: The development and validation of a new scale. *Current Psychology*, 43(30), 24835–24849. <https://doi.org/10.1007/s12144-024-06191-2>

Hundal, K., Dobmeier, C. M., Walter, N., Nabi, R., & Scherr, C. L. (2024). Using emotional flow in patient testimonials to debias affective forecasting in health decision-making. *Communication Monographs*, 91(1), 102–125.

<https://doi.org/10.1080/03637751.2023.2252486>

Johnson, D. R., Jasper, D. M., Griffin, S., & Huffman, B. L. (2013). Reading narrative fiction reduces Arab-Muslim prejudice and offers a safe haven from intergroup anxiety. *Social Cognition*, 31(5), 578–598. <https://doi.org/10.1521/soco.2013.31.5.578>

Kaufman, G. F., & Libby, L. K. (2012). Changing beliefs and behavior through experience-taking. *Journal of Personality and Social Psychology*, 103(1), 1–19.

<https://doi.org/10.1037/a0027525>

Kemp, E., Bui, M., Krishen, A., Homer, P. M., & LaTour, M. S. (2017). Understanding the power of hope and empathy in healthcare marketing. *Journal of Consumer Marketing*, 34(2), 85–95. <https://doi.org/10.1108/JCM-04-2016-1765>

Kemp, E., Min, K. S., & Joint, E. (2015). Selling hope: The role of affect-laden health care advertising in consumer decision making. *Journal of Marketing Theory and Practice*, 23(4), 434–454. <https://doi.org/10.1080/10696679.2015.1049688>

Kim, H. S., Bigman, C. A., Leader, A. E., Lerman, C., & Cappella, J. N. (2012). Narrative health communication and behavior change: The influence of exemplars in the

news on intention to quit smoking. *Journal of Communication*, 62(3), 473–492.

<https://doi.org/10.1111/j.1460-2466.2012.01644.x>

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.

Krämer, B., & Peter, C. (2020). Exemplification effects: A meta-analysis. *Human Communication Research*, 46(2–3), 192–221. <https://doi.org/10.1093/hcr/hqz024>

Kreuter, M. W., Green, M. C., Cappella, J. N., Slater, M. D., Wise, M. E., Storey, D., Clark, E. M., O’Keefe, D. J., Erwin, D. O., Holmes, K., Hinyard, L. J., Houston, T., & Woolley, S. (2007). Narrative communication in cancer prevention and control: A framework to guide research and application. *Annals of Behavioral Medicine*, 33(3), 221–235. <https://doi.org/10.1007/BF02879904>

Kühn, S., & Boshoff, C. (2023). The role of plot in brand story construction: A neurophysiological perspective. *Journal of Strategic Marketing*, 31(2), 471–497.

<https://doi.org/10.1080/0965254X.2021.1968018>

Lang, A. (2017). Limited capacity model of motivated mediated message processing (LC4MP). In *The International Encyclopedia of Media Effects* (pp. 1–9). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118783764.wbieme0077>

Larson, R. J., Schwartz, L. M., Woloshin, S., & Welch, H. G. (2005). Advertising by academic medical centers. *Archives of Internal Medicine*, 165(6), 645–651.

<https://doi.org/10.1001/archinte.165.6.645>

Lee, H., & Jahng, M. R. (2020). The role of storytelling in crisis communication: A test of crisis severity, crisis responsibility, and organizational trust. *Journalism & Mass Communication Quarterly*, 97(4), 981–1002. <https://doi.org/10.1177/1077699020923607>

Little, T. D. (2013). *Longitudinal structural equation modeling*. Guilford Press.

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(2), 151–173.

https://doi.org/10.1207/S15328007SEM0902_1

Little, T. D., Lindenberger, U., & Nesselroade, J. R. (1999). On selecting indicators for multivariate measurement and modeling with latent variables: When “good” indicators are bad and “bad” indicators are good. *Psychological Methods*, 4, 192–211.

<https://doi.org/10.1037/1082-989X.4.2.192>

Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy needn’t be one. *Psychological Methods*, 18, 285–300.

<https://doi.org/10.1037/a0033266>

Martel, S. L., Strang, M., Singh, N., Shariff, S., & Marwaha, S. (2022). Co-authoring the “person” in person-centred care: A critical narrative analysis of patient stories on healthcare organization websites. In C. Elliott & J. Greenberg (Eds.), *Communication and Health: Media, Marketing and Risk* (pp. 191–207). Springer. https://doi.org/10.1007/978-981-16-4290-6_10

Marsh, H. W., Hau, K.-T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling: A Multidisciplinary Journal*, 11(3), 320–341. https://doi.org/10.1207/s15328007sem1103_2

Mazzocco, P. J., & Green, M. C. (2011). Narrative Persuasion in Legal Settings: What's the Story? *The Jury Expert*, 23(3). <https://thejuryexpert.com/2011/05/narrative-persuasion/>

McLeod, M. (2023). Happy endings: An analysis of “kicker quotes” in cancer patient narratives used to promote cancer care centers. *The International Journal of Health, Wellness, and Society*, 14(1), 15–36. <https://doi.org/10.18848/2156-8960/CGP/v14i01/15-36>

McLeod, M. L. (2022). Attitudes of gratitude: An analysis of 30 cancer narratives published by leading U.S. cancer care centers. *International Journal of Medical and Health Sciences*, 16(6), 77–85.

Meyer, S. B., Brown, P., Calnan, M., Ward, P. R., Little, J., Betini, G. S., Perlman, C. M., Burns, K. E., & Filice, E. (2024). Development and validation of the trust in multidimensional healthcare systems scale (TIMHSS). *International Journal for Equity in Health*, 23(1), 94. <https://doi.org/10.1186/s12939-024-02162-y>

Moyer-Gusé, E. (2008). Toward a theory of entertainment persuasion: Explaining the persuasive effects of entertainment-education messages. *Communication Theory*, 18(3), 407–425. <https://doi.org/10.1111/j.1468-2885.2008.00328.x>

Mueller, S., Diehl, S., Taylor, C. R., Terlutter, R., & Mueller, B. (2022). Do CSR ads with public health messages pertaining to COVID-19 actually help consumers, advertisers, and society? Insights from the United States and Germany. *Journal of Current Issues & Research in Advertising*, 0(0), 1–23.

<https://doi.org/10.1080/10641734.2022.2079025>

Murphy, S. T., Frank, L. B., Chatterjee, J. S., & Baezconde-Garbanati, L. (2013). Narrative versus nonnarrative: The role of identification, transportation, and emotion in reducing health disparities. *Journal of Communication*, 63(1), 116–137.

<https://doi.org/10.1111/jcom.12007>

Nabi, R. L., & Green, M. C. (2015). The role of a narrative's emotional flow in promoting persuasive outcomes. *Media Psychology*, 18(2), 137–162.

<https://doi.org/10.1080/15213269.2014.912585>

Newman, T. B. (2003). The power of stories over statistics. *BMJ*, 327(7429), 1424–1427.

<https://doi.org/10.1136/bmj.327.7429.1424>

O'Keefe, D. J. (2003). Message properties, mediating states, and manipulation checks: Claims, evidence, and data analysis in experimental persuasive message effects research. *Communication Theory*, 13(3), 251–274. <https://doi.org/10.1111/j.1468-2885.2003.tb00292.x>

Oschatz, C., & Marker, C. (2020). Long-term persuasive effects in narrative communication research: A meta-analysis. *Journal of Communication*, 70(4), 473–496.

<https://doi.org/10.1093/joc/jqaa017>

Park, S.-Y., Yun, G. W., Cook, D. M., & Copes, M. J. (2023). Consumer perceptions of information features in healthcare service advertisements and attitudes toward advertising. *International Journal of Pharmaceutical and Healthcare Marketing*, 17(2), 209–228. <https://doi.org/10.1108/IJPHM-02-2022-0016>

Park, S.-Y., Yun, G. W., Friedman, S., Hill, K., Ryu, S. Y., Schwenk, T. L., & Copes, M. J. (2021). US direct-to-consumer medical service advertisements fail to provide adequate information on quality and cost of care. *Journal of Medical Ethics*, 47(12), e52–e52. <https://doi.org/10.1136/medethics-2020-106458>

Patet, S. (2018). *The stories they tell: How different children's hospitals are using patient stories on their websites*. University of Minnesota.

Perrier, M.-J., & Martin Ginis, K. A. (2018). Changing health-promoting behaviours through narrative interventions: A systematic review. *Journal of Health Psychology*, 23(11), 1499–1517. <https://doi.org/10.1177/1359105316656243>

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
<https://doi.org/10.1037/0021-9010.88.5.879>

Pounders, K., Kemp, D., & Bouchacourt, L. (2023). We're all in this together! Self-construal pride and guilt appeals in health advertising. *Journal of Current Issues & Research in Advertising*, 0(0), 1–17. <https://doi.org/10.1080/10641734.2023.2248219>

Ratcliff, C. L., & Sun, Y. (2020). Overcoming resistance through narratives: Findings from a meta-analytic review. *Human Communication Research*, 46(4), 412–443.

<https://doi.org/10.1093/hcr/hqz017>

Rimal, R. N., & Morrison, D. (2006). A uniqueness to personal threat (UPT) hypothesis: How similarity affects perceptions of susceptibility and severity in risk assessment.

Health Communication, 20(3), 209–219. https://doi.org/10.1207/s15327027hc2003_1

Rodgers, S., & Stemmle, J. (2020). Are “well-told” stories of cancer worn out? Insights on persuasion characteristics used in cancer narrative PSAs. *Journal of Current Issues & Research in Advertising*, 41(3), 257–283.

<https://doi.org/10.1080/10641734.2019.1641447>

Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1988). Social learning theory and the health belief model. *Health Education Quarterly*, 15(2), 175–183.

<https://doi.org/10.1177/109019818801500203>

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48, 1–36. <https://doi.org/10.18637/jss.v048.i02>

Rubenson, D., & Kapp, D. S. (2017). Getting real about NCI-designated cancer center advertising. *Nature Reviews Clinical Oncology*, 14(4), Article 4.

<https://doi.org/10.1038/nrclinonc.2017.28>

Schenker, Y., Arnold, R. M., & London, A. J. (2014). The ethics of advertising for health care services. *The American Journal of Bioethics*, 14(3), 34–43.

<https://doi.org/10.1080/15265161.2013.879943>

Schllich-Bakker, K. J., ten Kroode, H. F. J., Wárlám-Rodenhuis, C. C., van den Bout, J., & Ausems, M. G. E. M. (2007). Barriers to participating in genetic counseling and *BRCA* testing during primary treatment for breast cancer. *Genetics in Medicine*, 9(11), 766–777.

<https://doi.org/10.1097/GIM.0b013e318159a318>

Schreiner, C., Appel, M., Isberner, M.-B., & Richter, T. (2018). Argument strength and the persuasiveness of stories. *Discourse Processes*, 55(4), 371–386.

<https://doi.org/10.1080/0163853X.2016.1257406>

Schwartz, L. M., & Woloshin, S. (2016). Cancer center advertising—Where hope meets hype. *JAMA Internal Medicine*, 176(8), 1068–1070.

<https://doi.org/10.1001/jamainternmed.2016.3278>

Schwartz, L. M., & Woloshin, S. (2019). Medical marketing in the United States, 1997–2016. *JAMA*, 321(1), 80–96. <https://doi.org/10.1001/jama.2018.19320>

Shaffer, V. A., Brodney, S., Gavaruzzi, T., Zisman-Ilani, Y., Munro, S., Smith, S. K., Thomas, E., Valentine, K. D., & Bekker, H. L. (2021). Do personal stories make patient decision aids more effective? An update from the international patient decision aids standards. *Medical Decision Making*, 41(7), 897–906.

<https://doi.org/10.1177/0272989X211011100>

Shaffer, V. A., Focella, E. S., Hathaway, A., Scherer, L. D., & Zikmund-Fisher, B. J. (2018a). On the usefulness of narratives: An interdisciplinary review and theoretical model. *Annals of Behavioral Medicine*, 52(5), 429–442.

<https://doi.org/10.1093/abm/kax008>

Shaffer, V. A., Focella, E. S., Scherer, L. D., & Zikmund-Fisher, B. J. (2016). Debiasing affective forecasting errors with targeted, but not representative, experience narratives. *Patient Education and Counseling*, 99(10), 1611–1619.

<https://doi.org/10.1016/j.pec.2016.04.004>

Shaffer, V. A., Hulsey, L., & Zikmund-Fisher, B. J. (2013). The effects of process-focused versus experience-focused narratives in a breast cancer treatment decision task. *Patient Education and Counseling*, 93(2), 255–264.

<https://doi.org/10.1016/j.pec.2013.07.013>

Shaffer, V. A., Scherer, L. D., Focella, E. S., Hinnant, A., Len-Ríos, M. E., & Zikmund-Fisher, B. J. (2018b). What is the story with narratives? How using narratives in journalism changes health behavior. *Health Communication*, 33(9), 1151–1157.

<https://doi.org/10.1080/10410236.2017.1333562>

Shaffer, V. A., & Zikmund-Fisher, B. J. (2013). All stories are not alike: A purpose-, content-, and valence-based taxonomy of patient narratives in decision aids. *Medical Decision Making*, 33(1), 4–13. <https://doi.org/10.1177/0272989X12463266>

Shapiro, M. A., & Kim, H. (2012). Realism judgments and mental resources: A cue processing model of media narrative realism. *Media Psychology*, 15(1), 93–119.

<https://doi.org/10.1080/15213269.2011.649666>

Shen, F., Sheer, V. C., & Li, R. (2015). Impact of narratives on persuasion in health communication: A meta-analysis. *Journal of Advertising*, 44(2), 105–113.

<https://doi.org/10.1080/00913367.2015.1018467>

Soh, H., Reid, L. N., & King, K. W. (2009). Measuring trust in advertising. *Journal of Advertising*, 38(2), 83–104. <https://doi.org/10.2753/JOA0091-3367380206>

Silvia, P. J. (2006). Reactance and the dynamics of disagreement: Multiple paths from threatened freedom to resistance to persuasion. *European Journal of Social Psychology*, 36(5), 673–685. <https://doi.org/10.1002/ejsp.309>

Skovsgaard, M., & Hopmann, D. N. (2020). Handle with care: How exemplars affect the perceived appeal and informativeness of news stories. *Journalism Studies*, 21(8), 1146–1165. <https://doi.org/10.1080/1461670X.2020.1737565>

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570–585. <https://doi.org/10.1037/0022-3514.60.4.570>

Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues & Research in Advertising*, 26(2), 53–66.

<https://doi.org/10.1080/10641734.2004.10505164>

Straten, G. F. M., Friele, R. D., & Groenewegen, P. P. (2002). Public trust in Dutch health care. *Social Science & Medicine*, 55(2), 227–234. [https://doi.org/10.1016/S0277-9536\(01\)00163-0](https://doi.org/10.1016/S0277-9536(01)00163-0)

Sun, Y., Li, Z., & Wang, X. (2024). *Mapping narrative persuasion: A meta-review of 16 meta-analyses*. International Communication Association, Gold Coast, Queensland, Australia.

Szabo, L. (2017, April 27). Widespread hype gives false hope to many cancer patients. *KFF Health News*. <https://kffhealthnews.org/news/widespread-hype-gives-false-hope-to-many-cancer-patients/>

Tal-Or, N., & Cohen, J. (2010). Understanding audience involvement: Conceptualizing and manipulating identification and transportation. *Poetics*, 38(4), 402–418. <https://doi.org/10.1016/j.poetic.2010.05.004>

Thomas, V. L., & Grigsby, J. L. (2024). Narrative transportation: A systematic literature review and future research agenda. *Psychology & Marketing*, 41(8), 1805–1819. <https://doi.org/10.1002/mar.22011>

Ubel, P. A., Jepson, C., & Baron, J. (2001). The inclusion of patient testimonials in decision aids: Effects on treatment choices. *Medical Decision Making*, 21(1), 60–68. <https://doi.org/10.1177/0272989X0102100108>

van Berlo, Z. M. C., Campbell, C., & Voorveld, H. A. M. (2024). The MADE framework: Best practices for creating effective experimental stimuli using generative AI. *Journal of Advertising*, 0(0), 1–22. <https://doi.org/10.1080/00913367.2024.2397777>

van Laer, T., de Ruyter, K., Visconti, L. M., & Wetzels, M. (2014). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of

consumers' narrative transportation. *Journal of Consumer Research*, 40(5), 797–817.

<https://doi.org/10.1086/673383>

Vater, L. B., Donohue, J. M., Arnold, R., White, D. B., Chu, E., & Schenker, Y. (2014).

What are cancer centers advertising to the public? *Annals of Internal Medicine*, 160(12),

813–820. <https://doi.org/10.7326/M14-0500>

Vaughn, L. A., Hesse, S. J., Petkova, Z., & Trudeau, L. (2009). "This story is right on":

The impact of regulatory fit on narrative engagement and persuasion. *European Journal of Social Psychology*, 39(3), 447–456. <https://doi.org/10.1002/ejsp.570>

Volandes, A. E., Lehmann, L. S., Cook, E. F., Shaykevich, S., Abbo, E. D., & Gillick, M.

R. (2007). Using video images of dementia in advance care planning. *Archives of Internal Medicine*, 167(8), 828–833. <https://doi.org/10.1001/archinte.167.8.828>

Volandes, A. E., Paasche-Orlow, M. K., Barry, M. J., Gillick, M. R., Minaker, K. L.,

Chang, Y., Cook, E. F., Abbo, E. D., El-Jawahri, A., & Mitchell, S. L. (2009). Video

decision support tool for advance care planning in dementia: Randomised controlled trial.

BMJ, 338, b2159. <https://doi.org/10.1136/bmj.b2159>

Weijters, B., Baumgartner, H., & Schillewaert, N. (2013). Reversed item bias: An

integrative model. *Psychological Methods*, 18(3), 320–334.

<https://doi.org/10.1037/a0032121>

Willett, J. F. (2024). *The role of patient stories in health care brand storytelling*.

Association of Journalism and Mass Communication, Philadelphia, Pennsylvania.

Wilson, T. D., & Gilbert, D. T. (2003). Affective forecasting. In *Advances in experimental social psychology*, Vol. 35 (pp. 345–411). Elsevier Academic Press.
[https://doi.org/10.1016/S0065-2601\(03\)01006-2](https://doi.org/10.1016/S0065-2601(03)01006-2)

Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting: Knowing what to want. *Current Directions in Psychological Science*, 14(3), 131–134.
<https://doi.org/10.1111/j.0963-7214.2005.00355.x>

Zhang, W., Tsou, T.-H., Rodgers, S., & Willett, J. F. (2024). Comparing personalization strategies in social network advertising: The role of impression motivation in persuasion outcomes. *Journal of Interactive Advertising*, 24(3), 247–264.

<https://doi.org/10.1080/15252019.2024.2337057>

Zhao, W., Jin, Y., & Karinshak, E. (2023). Building trust and empowering informed decisions: Effects of risk disclosure and call to action on young adults' responses to dietary supplement advertising. *International Journal of Pharmaceutical and Healthcare Marketing*, 17(3), 249–264. <https://doi.org/10.1108/IJPHM-01-2023-0006>

Zillmann, D. (1999). Exemplification theory: Judging the whole by some of its parts. *Media Psychology*, 1(1), 69–94. https://doi.org/10.1207/s1532785xmep0101_5

Zillmann, D. (2006). Exemplification effects in the promotion of safety and health. *Journal of Communication*, 56(s1), S221–S237. <https://doi.org/10.1111/j.1460-2466.2006.00291.x>

VITA

Justin F. Willett was born and raised in Columbia, Missouri. He received his Bachelor of Journalism degree from the Missouri School of Journalism in May 2001. Justin worked as a reporter and editor at the Columbia (Mo) Daily Tribune (2001-03, 2007-14) and The Fayetteville (NC) Observer (2003-07).

From 2014-21, Justin worked in marketing communication. He served as a writer and editor at University of Missouri Health Care from 2015-18, then as communication manager for MU Health Care and the School of Medicine from 2018-21. During this time, he helped lead the health system's COVID-19 communication response and earned his Master of Health Administration degree from the School of Medicine.

In 2022, Justin began his doctoral studies and joined the Novak Leadership Institute. At the institute, he researches and teaches leadership concepts. His research agenda includes: (1) leadership communication with a focus on workplace culture and employee well-being and (2) narrative persuasion in healthcare communication.