# Images of Mental Illness in the Media: Identifying Gaps in the Research

by Patricia A. Stout, Jorge Villegas, and Nancy A. Jennings

## Abstract

This article summarizes research published over the past decade and identifies areas where future research is needed to increase our knowledge of the media's role in fostering or reducing mental illness stigma. The following questions are addressed: (1) How is mental illness portrayed by the media? (2) How do media images of mental illness impact individuals' knowledge, beliefs, attitudes, and behaviors with regard to mental illness? (3) How can the media be used to reduce mental illness stigma? The review reveals a lack of recent research on the U.S. media and a need for precision in how mental illness and the media are defined for study. Research is needed that involves a broader range of media channels as well as more distinctions among different types of content within channels and a more detailed analysis of media images themselves. The largest gap to be addressed is the link between exposure to media images and mental illness stigma. Use of the media as a tool for change requires a better understanding of what messages are conveyed, how they are developed, and what role media content producers play in creating these messages.

Keywords: Mental illness, media, stigma, television, newspapers, magazines, film.

*Schizophrenia Bulletin*, 30(3):543–561, 2004.

Mental illness is one of the most stigmatized conditions in our society (Tringo 1970; Albrecht al. 1982; Corrigan and Penn 1999). People with mental illness experience all of the key features of the stigma process: they are officially tagged and labeled, set apart, connected to undesirable characteristics, and broadly discriminated against as a result (Link et al. 1989; Corrigan and Penn 1999; Link and Phelan 1999). Several sources of negative attitudes toward people with mental illness include labels; behaviors; attributions; misinformation, particularly regarding the association between violence and mental illness (Link and Phelan 1999); and lack of contact (Corrigan and Penn 1999; Corrigan 2000). A central aspect of stigma for people with mental illness is the perception that they are dangerous and unpredictable (Nunnally 1961; Link and Cullen 1986; Link et al. 1999).

The Surgeon General's first comprehensive report on mental health in 1999 identified the stigma and discrimination associated with mental illness as major barriers deterring people with mental illness from acknowledging their mental health problems and seeking treatment (U.S. Department of Health and Human Services 1999). Many contend that stigma is a major reason why one-fourth of the estimated 50 million Americans experiencing mental illness yearly will not seek mental health services (Brown and Bradley 2002). The Surgeon General's report was intended to help reduce such stigma and discrimination by providing accurate information about mental illness and its treatment, and by encouraging the development and evaluation of fresh approaches to the reduction of stigma.

The mass media, including television and broadcast news, are the primary source of information about mental illness for many Americans (Yankelovich 1990). The media are believed to play a major role in contributing to mental illness stigma via the images they portray of characters with mental illness as well as the misinformation communicated, inaccurate use of psychiatric terms, and unfavorable stereotypes of people with mental illness (Wahl 1995). However, little is known about the media's role in perpetuating or reducing mental illness stigma.

It has been nearly a decade since Wahl's (1992) systematic review of more than 40 years of published research on images of mental illness in the media. He reviewed research across a range of media channels, including television, movies, and popular magazines. More recent reviews of images of mental illness in the media tend to focus on a specific media channel, such as television (Signorielli 1998), or on media consumed by a

---

specific audience, such as children (Wahl 2003). This article summarizes research published since Wahl's (1992) review, with the intent of identifying areas where future research is needed to increase our knowledge of the role of the media in fostering or reducing mental illness stigma. The following questions are addressed: (1) How is mental illness portrayed by the media? (2) How do media images of mental illness impact individuals' knowledge, beliefs, attitudes, and behaviors with regard to mental illness? (3) How can the media be used to reduce mental illness stigma? Gaps in previous research are identified and directions for future research are suggested.

## Why the Media May Matter

The study of media treatments of persons with mental illness dates back to the 1950s (Taylor 1957; Gerbner 1959), with emphasis on the entertainment media's influences on the individual. While television has been recognized as having a pivotal role in "socializing individuals and stabilizing lifestyles" (Gerbner et al. 1982, p. 291), individuals obtain health information from many sources (Neuendorf 1990). Neuendorf includes entertainment media, and news and documentary media, in addition to health professionals and health professional organizations, and other individuals as either direct or indirect influences on individuals' health information and health images. Although the media are but one source of the messages, it is generally thought that mass media images of mental illness perpetuate mental illness stigma.

Attempting to understand the influence of mass media on individuals' attitudes and behaviors has been a major focus of mass communication research. Two mass communication theories, cultivation theory and social learning theory, are particularly helpful to understanding how the media act as a socializing agent and thus may influence the construction and perpetuation of mental illness stigma.

Cultivation theory suggests that heavy exposure to consistent and recurrent messages on television will "reiterate, confirm, and nourish" values and shape perceptions of social reality to conform to those presented on television (Gerbner et al. 2002, p. 49). According to cultivation theory, Gerbner and his colleagues submit that "those who spend more time 'living' in the world of television are more likely to see the 'real world' in terms of the images, values, portrayals, and ideologies that emerge through the lens of television" (Gerbner et al. 2002, p. 47). That is, people who watch a lot of television are more likely to express opinions and hold values similar to those represented on television than are people who watch only a little television. For example, years of message analyses indicate that violent crimes occur more frequently on tele-

vision than they do in the real world, according to FBI statistics; heavy exposure to television cultivates a misconception about crime and law enforcement in general (Gerbner et al. 2002). Applying this theory to mental illness stigma would suggest that people who watch a lot of television would assume a television world view of mental illness.

Similarly, according to social learning theory (Bandura 1986), learning can be achieved through not only direct experience but also through observation. Individuals can learn a great deal about the world through what they see and hear, particularly through media sources (Bandura 2002). Bandura (2002) would submit that as people watch television they acquire knowledge about behaviors as well as social conventions such as rules of conduct. Furthermore, according to social learning theory, those behaviors that are rewarded are more likely to be learned and invoked than those behaviors that are punished or unrewarded. Once again, the nature of the depiction has implications for the lessons learned. Applying this theory to mental illness stigma would suggest that television teaches social conventions of how to treat individuals with mental illness.

Together, these two theories work in tandem with each other; cultivation analysis provides descriptions of the recurrent messages that are being vicariously learned via observation (social learning theory). In the absence of real world experience with people with mental illness, individuals may rely on the media for their perceptions of those who have mental illnesses (Link and Cullen 1986). Meanwhile, the media tend to consistently link portrayals of people with mental illness and violent behavior to a degree greater than the real world association (Wahl 1992). This recurrent depiction can lead to learning through media exposure that people with mental illness are dangerous, are to be feared, and should be avoided. Recent research supports this notion, finding that those who watch a lot of television hold more negative views of individuals with mental illness than do those who watch only a little (Granello and Pauley 2000).

In an attempt to better understand how the media portray mental illness, what the impact of these media portrayals is, and how the media might be used to reduce mental illness stigma, a review of published literature on the media and mental illness was conducted.

## Methodology

A series of steps were used to gather the articles assessed in this article. First, keywords were used to search comprehensive data bases, including EBSCO, MEDLINE,

PsychINFO, and PsychNET, to identify manuscripts published between 1990 and 2003. Keywords included such items as mental illness, psychiatric problems, mental health, media, television, newspaper, film, magazines, Internet, World Wide Web, stigma, and prejudice. The year 1990 was chosen as the date to begin the search to provide some overlap with papers either in press at the time of or published concurrently with Wahl's review (1992). Second, the abstracts of the papers obtained from this search were analyzed and selected according to criteria that evaluated the presence or absence of an empirical study (i.e., experiment, survey, interviews, content analysis, discourse analysis, and other qualitative techniques) and the nature of the article. More specifically, the references obtained via the keyword search that presented news items or editorials were eliminated, as were articles in languages other than English. Last, the articles selected were examined and relevant papers that were cited in the articles selected via the data base search (but that did not appear in the data base) were included in the review, resulting in a total of 34 qualified references. Table 1 presents the list of empirical studies examining media, stigma, and mental illness published between 1990 and 2003. While additional articles were identified in the search (e.g., literature reviews), only references reporting on new empirical research studies are included in table 1.

The method of analysis of the final set of articles was a literature review. Although some argue for the application of meta-analytic techniques rather than traditional literary reviews (Wolf 1986; Beaman 1991), it was felt that the literature in the area of mental illness stigma and mass media is insufficient to allow a meaningful application of meta-analysis. Echoing Wahl's (1992) findings, our search since 1990 found that the number of empirical papers that can be compared is relatively small because of inconsistencies between definitions of mental illness and methodological procedures. Because the main objective of this article was to provide a panoramic view of what is known and what remains unknown about the role of media images of mental illness and stigma, it was felt that a literature review would be the most appropriate technique. While this review was intended to be a comprehensive review of empirical research published on the topic since 1990, it is not exhaustive because it is biased in favor of empirical studies. Some detail is provided about each of the studies presented, within the limits of space constraints. Finally, while the intent of this article is to present new literature published since Wahl (1992), references to older and/or previously reviewed research are sometimes included to provide a benchmark for interpreting current knowledge.

## What Is Mental Illness in Media Content Research?

Content analysis is the preferred method for assessing the prevalence of specific types of content in the media and is a useful tool for message evaluation (Krippendorff 1980; Neuendorf 2002). The method involves the use of formalized procedures to enable subsequent inference and analysis of media content and comparison of results of different analyses over time (Krippendorff 1980). In the case of images of mental illness in the media, this would include how mental illness is defined when applied to characters and references to mental illness.

The 1996 General Social Survey research indicates that the perception of what constitutes a mental illness has changed in the public mind over time to include disorders such as depression and anxiety (Phelan and Link 1998; Phelan et al. 2000). While it is beyond the scope of this article to debate the appropriate definition of mental illness for use in media research and elsewhere, in recent studies examining media content, mental illness tended more often to be considered generically (often as being synonymous with psychosis) (table 1). Only a handful of studies identified a specific diagnosis, such as schizophrenia (Wahl et al. 1995) or obsessive-compulsive disorder (Wahl 2000). And, while some studies instructed media content coders to identify the presence of mental illness based on categories in *DSM–IV* (APA 2000) (e.g., Diefenbach 1997), others relied on specific labeling by other characters in the program to establish whether a character has a mental illness (Wilson et al. 1999*b*, 2000).

Given the relatively limited number of studies for review and the tendency to define mental illness more generically in the literature, for purposes of discussion in this article we do not distinguish among different types of mental illness but frame the majority of our discussion around mental illness as generally defined.

## Representation of Mental Illness in the Media

**Previous Literature Revisions.** It has been just over a decade since Wahl (1992) reviewed published research from the 1950s through 1991 that addressed the frequency, accuracy, and impact of the mass media's portrayal of mental illness (p. 343). He reported that depictions of mental illness occur across several media platforms, including film (6%), television (10–20% of prime-time programs), and popular magazines (Wahl 1992). Furthermore, Wahl (1992) found a fairly consistent image of mental illness in the media. Specifically, the media tended to present severe, psychotic disorders

**Table 1. Empirical studies examining media, stigma, and mental illness, 1990–2003**

| Authors | Publication year | Type of mental illness | Purpose | Country studied | Primary method | Media source | Description | Question[1] |
|---|---|---|---|---|---|---|---|---|
| Allen and Nairn | 1997 | General | Description of mass media content | New Zealand | Discourse analysis | Print media | Media practices influence the readers' formation of mental illness meanings. | 1 |
| Angermeyer and Matschinger | 1996 | Schizophrenia | Mass media effects | Germany | Survey | Mass media[2] | Subjects' desire for social distance increased following the attacks on 2 prominent politicians by individuals with schizophrenia. | 2 |
| Angermeyer and Schulze | 2001 | General | Description of mass media content | Germany | Content analysis | Newspapers | Newspapers' emphasis on the coverage of mental illness elicited by bad/sensational events leads to an overrepresentation of negative stories. | 1 |
| Bischoff and Reiter | 1999 | General | Description of mass media content | United States | Content analysis | Film | Female therapists were often sexualized, while male therapists were portrayed as incompetent. | 1 |
| Coverdale et al. | 2002 | General | Description of mass media content | New Zealand | Content analysis | Newspapers | Dangerousness and criminality were more frequent themes than positive issues such as human rights and accomplishments. | 1 |
| Dickerson et al. | 2002 | Schizophrenia | Mass media effects | United States | Survey | Mass media | More than 40% of the participants (persons with schizophrenia) mentioned the media as a source of offensive statements. | 2 |
| Diefenbach | 1997 | General | Description of mass media content | United States | Content analysis | Television | Characters with mental illnesses are portrayed as more violent, as having a negative impact on society, and as having a negative quality of life. | 1 |

| Authors | Publication year | Type of mental Illness | Purpose | Country studied | Primary method | Media source | Description | Question[1] |
|---|---|---|---|---|---|---|---|---|
| Gabbard and Gabbard | 1992 | General | Description of mass media content | United States | Content analysis | Film | 10 cinematic stereotypes of psychiatrists and their effects are presented. | 1 |
| Granello and Pauley | 2000 | General | Mass media effects | United States | Survey | Television | Amount of television viewing was associated with authoritarian views and negatively correlated to benevolence. | 2 |
| Granello et al. | 1999 | General | Mass media effects | United States | Survey | Electronic media | The use of electronic media as a source of information was negatively correlated to tolerance. | 2 |
| Grierson and Scott | 1995 | General | Attitudes toward mental illness | United States | Survey | Newspapers | Editors are less likely to consider individuals with mental illness dangerous and unpredictable than are members of the general population, but editors are also less likely to hire them. | 2, 3 |
| Griffiths and Christensen | 2000 | Depression | Description of mass media content | United States | Content analysis | Web sites | Better information about depression is needed and valid indicators of site quality need to be developed. | 1, 3 |
| Levey and Howells | 1995 | Schizophrenia | Attitudes toward mental illness | United Kingdom | Survey | Mass media | Perceptions of unpredictability of people with schizophrenia were correlated to the use of fictional television as a source of information about mental illness. | 2 |
| Lopez | 1991 | General | Attitudes toward mental illness | United States | Survey | Mass media | Adolescents were less accepting of intimacy with people with mental illness. Mass media was perceived as one of the most important sources of attitudes. | 2 |

**Table 1. Empirical studies examining media, stigma, and mental illness, 1990–2003—Continued**

| Authors | Publication year | Type of mental illness | Purpose | Country studied | Primary method | Media source | Description | Question[1] |
|---|---|---|---|---|---|---|---|---|
| Lyons and Ziviani | 1995 | General | Mass media effects | United States | Interviews | Mass media | Occupational therapy students' anxiety toward working with people with mental illness (provoked in part by mass media) diminished with contact. | 2 |
| Nairn | 1999 | General | Description of mass media content and production processes | New Zealand | Discourse analysis | Print media | The positive depictions of mental illness provided by psychiatrists as expert sources were not clearly communicated because of journalists' need to create newsworthy narratives. | 1, 3 |
| Nairn et al. | 2001 | General | Description of mass media content (production of media) | New Zealand | Discourse analysis | Newspapers | The comparison of a commissioner's case note with the newspaper articles that covered the topic indicated use of stereotypes. | 1 |
| Penn et al. | 2003 | Schizophrenia | Development of intervention | United States | Experiment | Television documentary | Intervention had a positive effect on attribution of illness but caused no changes in subjects' attitudes or desire to interact. | 2, 3 |
| Philo et al. | 1994 | General | Description of mass media content | United Kingdom | Content analysis | Mass media | Two-thirds of 500 news items extracted from U.K media described a link between violence and mental illness. | 1 |
| Reda | 1996 | General | Attitudes toward mental illness | United Kingdom | Survey | Mass media | Extremely negative attitudes toward persons with mental illness, attitudes largely formed from the media, were found. | 2 |
| Shain and Phillips | 1991 | General | Description of mass media content | United States | Content analysis | Newspapers | Crime stories related to people with mental illness decreased in the span of the study, but dangerousness of the mentally ill was an important topic. | 1, 3 |

| Authors | Publication year | Type of mental illness | Purpose | Country studied | Primary method | Media source | Description | Question[1] |
|---|---|---|---|---|---|---|---|---|
| Thornton and Wahl | 1996 | General | Study of stigma-reducing strategy | United States | Experiment | Newspapers | Prophylactic information about media distortion and mental illnesses helped to limit the creation of negative attitudes. | 2, 3 |
| Tolomiczenko et al. | 2001 | General/ homelessness | Study of stigma-reducing strategy | Canada | Experiment | Television documentary | An experiment with 3 conditions (control, video that showed the struggle of homeless people with mental illness, and video and discussion with a homeless person) led to the conclusion that the most effective condition was the video plus discussion. | 2, 3 |
| Wahl | 1999 | General | Mass media effects | United States | Survey | Mass media | 77% of the subjects reported encountering hurtful or offensive media portrayals of mental illness at least sometimes. | 2 |
| Wahl | 2000 | Obsessive-compulsive disorder | Description of mass media content | United States | Content analysis | Magazines | 31 out of 107 articles that had obsessive-compulsive disorder as a topic heading had specific information. This information was perceived as accurate. Other articles focused on stalkers of famous individuals. | 1 |
| Wahl and Kaye | 1992 | General | Description of mass media content | United States | Content analysis | Magazines | Found increase in number of articles and range of topics related to mental illness and treatment consistent with changes in the field. | 1 |
| Wahl et al. | 1995 | Schizophrenia | Description of mass media content | United States | Content analysis | Magazines | A small number of articles (lower for popular publications) were found. Treatment and correction of misinformation were not covered frequently. | 1 |

**Table 1. Empirical studies examining media, stigma, and mental illness, 1990–2003—Continued**

| Authors | Publication year | Type of mental illness | Purpose | Country studied | Primary method | Media source | Description | Question[1] |
|---|---|---|---|---|---|---|---|---|
| Wahl et al. | 2002 | General | Description of mass media content | United States | Content analysis | Newspapers | Stigma and mental health insurance issues increased; dangerousness perceptions decreased, but the topic still was the most frequent theme. | 1 |
| Wahl et al. | 2003 | General | Description of mass media content | United States | Content analysis | Children's films | 24% of movies targeted to children contained characters that were labeled as having a mental illness. The messages about mental illness were mixed: Positive images included other characters' trust in the character with the mental illness, while negative images communicated the other characters' fear. | 1 |
| Walker and Read | 2002 | General | Study of stigma-reducing strategy | New Zealand | Experiment | Television documentary | Biogenetic causal explanations of mental illness increased perceptions of dangerousness and unpredictability. | 2, 3 |
| Williams and Taylor | 1995 | General | Description of mass media content | United States | Content analysis | Newspapers | 2 main issues emerged: closure of mental health hospitals, and images of violence and unpredictability. | 1 |
| Wilson et al. | 1999*a* | General | Description of mass media content | New Zealand | Discourse analysis | Television | Dangerousness of a mentally ill person was communicated through 9 devices, including a character's appearance, music, and sound effects. | 1, 3 |
| Wilson et al. | 1999*b* | General | Description of mass media conten | New Zealand | Content analysis | Television | Characters were depicted negatively as violent, lacking in comprehension, and appearing lost, unpredictable, unproductive, asocial, vulnerable, and dangerous to themselves or others. | 1 |

550

| Authors | Publication year | Type of mental Illness | Purpose | Country studied | Primary method | Media source | Description | Question[1] |
|---|---|---|---|---|---|---|---|---|
| Wilson et al. | 2000 | General | Description of mass media content | New Zealand | Discourse analysis | Children's television | Less than half of the television programs contained references to mental illness. Negative attributes, such as lack of control, appeared more frequently than positive images. | 1 |

[1] Questions: (1) How is mental illness portrayed by the media? (2) What is the nature of media impact? (3) How can media be used to reduce mental illness stigma?

[2] Mass media refers to more than one medium or the use of the general description of mass media as a source of information.

(Nunnally 1961; Day and Page 1986). Persons with mental illness were depicted as being inadequate, unlikable, and dangerous (Signorielli 1989) and as lacking social identity (Wahl and Roth 1982). Characters with mental illness were portrayed as unemployable—they were less likely to be employed outside the home and more likely to be seen as failures when employed (Signorielli 1989). Even more consistent were depictions of violence and dangerousness associated with media images of mental illness. Signorielli (1989) found that 72 percent of characters with mental illness portrayed in prime-time television dramas were violent.

Wahl (1992) cited several limitations of the research included in his review. First, the studies were old and might not have reflected the changes that had occurred in the industry, especially television, by the early 1990s. Second, methodological issues involving common elements of content analysis such as a lack of consistency in what was being studied (e.g., a mental disorder and its treatment vs. mental health treatment personnel and institutions) and how to define and code relevant terms limited direct comparison of findings from the studies. Also, identification of common characteristics of persons with mental illness varied based on the types of illnesses included in the study as well as the nature of the sample (e.g., coding actual media content vs. coding descriptions of film and television programs).

**Recent Research on Images of Mental Illness.** Since Wahl (1992), the nature and scope of the study of mental illness has changed. First, in Wahl's review (1992), television was "by far the most studied medium" (p. 344) and appeared to be the primary contributor of mental health information. However, recent research on images of mental illness in the media indicates that while television continues to receive a fair share of attention (Diefenbach 1997; Wilson et al. 1999b, 2000), research attention to other media sources, including newspapers (Williams and Taylor 1995; Thornton and Wahl 1996; Allen and Nairn 1997; Nairn et al. 2001; Coverdale et al. 2002; Wahl et al. 2002), general circulation magazines (Wahl et al. 1995; Wahl 2000), and film (Gabbard and Gabbard 1992; Bischoff and Reiter 1999; Wahl et al. 2003), is growing. Some attention is being drawn to new media such as the Internet (Griffiths and Christensen 2000), yet no research has been conducted in the area of direct-to-consumer (DTC) advertising or public service announcements (PSAs). Second, of the few studies that examine television content, recent research not only assesses the manifest or surface content of mass media messages (most often using content analysis) (Diefenbach 1997) but attempts to identify the underlying meanings of messages (most often through discourse analysis) (Wilson et al.

1999*a*, 1999*b*). Moreover, across all media outlets, a number of studies have been examining print and visual content outside of the United States, most notably in New Zealand.

Over the past decade, research on media content has indicated growing attention to images of mental illness in print media, both in newspapers and in popular magazines. Previous research on newspapers indicates a link between violence and mental illness. Shain and Phillips (1991) found that 85 percent of United Press International stories reporting on former psychiatric patients emphasized the perpetration of a violent crime. Philo (1998) suggests that this link between violence and mental illness is amplified by U.K. newspapers' common practice of noting in the headline that a crime was perpetrated by a person with mental illness. German newspapers also report a disproportionate number of negative stories on mental illness linked to news coverage of sensational events (Angermeyer and Schulze 2001).

More recent research on newspapers includes trend analyses that indicate that references to dangerousness are decreasing in the articles that discuss mental illness (Wahl et al. 2002). In a national sample of 300 articles containing the words "mental illness" from six U.S. newspapers, Wahl et al. (2002) found more coverage of issues of stigma, fewer themes of dangerousness, and fewer articles with a negative tone in 1999 than in 1989. Dangerousness was still the most common theme in 1999, however, and negative articles outnumbered positive ones. Wahl and colleagues also found that articles used the term "mental illness" in lieu of naming a specific psychiatric disorder. Others have also found an increase in attention paid to causes and treatments of mental illness (Shain and Phillips 1991) and an increase of references made to stigma and mental illness as well as more interest in presenting information about mental health policies and their consequences (Williams and Taylor 1995). However, images of mental illness associated with violence and unpredictability were also prevalent (Shain and Phillips 1991; Williams and Taylor 1995).

Coverdale et al. (2002) examined 600 items depicting at least one person with mental illness published in a national sample of New Zealand newspapers over a 4-week period in 1997. News articles and editorial pieces were most common (94%). Negative depictions occurred most frequently, with dangerousness to others (62%) and criminality (47%) the most common. Positive depictions occurred in 27 percent of the items and included themes of human rights, leadership, and educational accomplishments. Nearly half (47%) of the items used generic terminology for mental illness in lieu of a specific diagnostic category. While the authors caution that their findings do not generalize to media outside of New Zealand, they conclude that print media portrayals of mental illness are "negative, exaggerated and do not reflect the reality of most people with a mental illness" (p. 700). The authors also express concern that such depictions encourage stigma.

A few recent studies have examined how mental illness, specifically diagnostic categories such as schizophrenia (Wahl et al. 1995) and obsessive-compulsive disorder (OCD) (Wahl 2000), is presented in popular magazines by assessing the type and accuracy of the information presented to the general public. Wahl et al. (1995) examined 137 magazine articles on schizophrenia identified between 1964 and 1992 using the *Readers' Guide to Periodical Literature*. Few articles were found (nine annually), with the majority coming from "popular science" magazines that reported briefly on specific research findings. Wahl (2000) conducted a similar examination of OCD and identified 31 (of 107 total) articles between 1983 and 1997 that discussed OCD explicitly. He concluded that these articles were fairly accurate in how they presented symptoms, causes, and treatments. The remaining articles identified focused on news-related issues involving obsessed fans stalking celebrities. Wahl comments that this suggests a lack of distinction between OCD and "obsessive" behavior and may be communicating misinformation.

Since Wahl's 1992 review, few studies have examined images of mental illness on television. One study (Diefenbach 1997) content-analyzed a 2-week sample of U.S. prime-time network television programming in the fall of 1994. In his sample of 184 programs, 32 percent contained at least one character with mental illness. The focus of the study examined the relationship between the portrayal of persons with mental disorders and violent crime. He found persons with mental illness to be nearly 10 times more violent than the general population of television characters. The violent offender had a mental illness in over 50 percent of the programs in crime dramas, reality-based shows, news magazines, and movies. This rate dropped to about 12 percent in other dramas, and no characters with mental illness were found in situation comedies. In comparison with U.S. crime statistics, the persons with mental illness portrayed on television were 10 to 20 times more violent than those with mental illness in the U.S. population.

Two studies that examined images of mental illness in television were conducted in New Zealand. During 1995–96, Wilson et al. (1999*b*) examined 14 prime-time television dramas that included at least one character with a mental illness. Programs originated in the United Kingdom, Australia, or New Zealand (no U.S. programs were included in the analysis). Ten patterns or themes were identified in the depiction of mental illness (including dangerous/aggressive, simple/childlike, unpredictable,

failure-prone/unproductive, asocial, vulnerable, dangerous/incompetent, untrustworthy, caring/empathic, and social outcast) that had different interplays in various settings and were shaped by the needs of the story within the program. Characters were depicted as physically violent and depicted negatively in the majority of occurrences. The authors found the portrayal of people who have a mental illness "outstandingly negative" (p. 236) and concluded that this contributes to the stigmatization of this population.

Similar results were found in a second New Zealand study (Wilson et al. 2000) that examined nearly 60 hours of television programs directed to children under 10 years of age. Forty-six percent of the 128 episodes contained one or more references to mental illness, predominantly in cartoons. Terms commonly occurring as references included "crazy," "mad," and "losing your mind" and denoted loss of control. Characters with mental illness portrayed in the programs were "stereotypically and blatantly negative and served as objects of amusement, derision or fear" (p. 442). Yet the authors also found that many of the references to mental illness were about a character's actions in a situation rather than a character's nature or mental state (p. 441). The authors conclude that young viewers are being socialized to have stigmatizing conceptions of mental illness.

In a recent review of a number of studies of the depiction of mental illness in children's media in the United States, Wahl (2003) concluded that references to mental illness are frequent in these media vehicles geared to children. The negative images that include links to violence and criminality are more frequent than are positive perspectives on characters who exhibit symptoms of mental illness.

Negative portrayals of characters with mental illness also appear in children's films. Wahl et al. (2003) examined 49 children's films and found that 24 percent had at least one character labeled as having mental illness and 43 percent contained references to mental illness. Of the 14 characters identified, the majority were adult, male, and Caucasian and were depicted as violent in 67 percent of the films. Wahl et al. found that mental illness tended to be contextualized in a manner where other characters responded in positive ways to the character with mental illness. Yet characters with mental illness also tended to threaten and frighten other characters.

Not only are characters with mental illness portrayed negatively; two studies suggest that film also distorts the image of mental health professionals. Bischoff and Reiter (1999) reported the results of a content analysis of movies that were shown in the United States between 1988 and 1998 and included at least one character who was a mental health clinician. They identified 61 movies with a total

of 99 characters portrayed as clinicians. The authors found that female clinicians were more likely to be portrayed as sexualized and male clinicians were more likely to be portrayed as incompetent. Males were gender-stereotyped as ill-equipped to address the emotional problems of others. The authors suggest that by understanding the stereotypes of mental health professionals portrayed in movies, therapists may be better able to address the myths clients have about treatment.

Gabbard and Gabbard (1992) report on a critical analysis of nearly 85 years (1906–1989) of theatrically released American movies, where roughly 300 films feature a psychiatrist or other mental health professional. While they identify ten stereotypes found in cinema that present psychiatrists in negative roles such as "libidinous lecher," "eccentric buffoon," and "unempathic coldfish," positive stereotypes were also revealed. Like Bishoff and Reiter (1999), they conclude that if therapists can understand the nature of the attitudes clients bring to counseling treatment, this can enhance their understanding of their clients' feelings.

Only limited research has been conducted focusing on new media such as the Internet or video games. The Pew Internet and American Life Project reports that the use of the Internet as a source of information about health issues in general is a normal activity for a majority of U.S. Web surfers (63%) but not as preponderant for mental health issues (21%) (Fox and Fallows 2003). However, only a single study could be identified that addresses content related to mental illness online. Griffiths and Christensen (2000) found that while the Web sites they examined contained useful information about depression treatments, the overall quality was poor because it was difficult to determine the scientific evidence behind the assertions found on these sites.

Finally, virtually nothing is known about how mental illness may be represented to either perpetuate or reduce stigma via messages delivered through DTC advertising or PSAs. While PSAs have been used to endorse change in the stigmatization of people with mental illness (Epilepsy Foundation 2001; Brown and Bradley 2002), little is known about the effects of this type of message on the public's knowledge, attitudes, and behaviors regarding mental illness, and no evidence has been collected to date exploring the depiction of mental illness in PSAs or DTC advertising.

## Evidence of Effects of Mass Media and Mental Illness Stigma

**Correlational Evidence From Survey Research.** Wahl (1992) concluded that research supported the belief that

"media images of mental illness can influence public knowledge and attitudes about mental illness" (p. 348). This conclusion tends to be echoed by other studies that suggest the mass media are an important source of information about mental illness and, in some cases, of negative attitudes toward people who have a mental illness. Lopez (1991) examined the attitudes of adolescents aged 14 to 18 about mental illness and found that mass media and parents are the most important sources of their attitudes on perceived personal experience with someone with mental illness. Furthermore, Levey and Howells (1995) explored the beliefs about dangerousness, unpredictability, and differentness of individuals in relation to people with schizophrenia and found that among members of the general public, and undergraduate college students in psychology and nursing, respondents believed that people with schizophrenia are different from them and are unpredictable. They also found that higher ratings of unpredictability were associated with participants' identification of fictional television as a source of information about schizophrenia. Moreover, these beliefs were associated with rejection and fear of people with mental illness. Interviews with health care providers in the field indicated high levels of anxiety associated with personal contact with a person with mental illness, attributed in part to the mass media (Lyons and Ziviani 1995). Daily contact lowered the negative feelings, however.

In an attempt to explore this relationship between media use and knowledge and attitudes about mental illness, Granello et al. (1999) examined differences among undergraduate students' scores on the Community Attitudes Toward the Mentally Ill (CAMI) (Taylor and Dear 1981) questionnaire and their self-reported primary source of information about mental illness. Individuals who reported receiving their information primarily from electronic media (e.g., television, film) reported less tolerance of individuals with mental illness than did individuals who received their information primarily from print media. In a subsequent study, Granello and Pauley (2000) examined the amount of television viewing by individuals and their attitudes toward persons with mental illness (Granello and Pauley 2000). Of 154 undergraduate college students participating in the study, roughly one-third (53 students) reported that television was their primary source of information on mental illness. Again, comparing scores on the CAMI as a measure of attitudes, amount of time spent watching television was significantly and positively related to intolerance toward mental illness, was associated with authoritarian views toward people with mental illness, and was associated with less positive attitudes of benevolence. The authors also found some evidence of differences in individuals' intolerance across different genres of programs, with reported viewing of

daytime soap operas and prime-time situation comedies associated with more intolerance. Overall, those who watched more television had more negative attitudes toward persons with mental illness.

News coverage can also affect the perception of people with mental illness. Results of a longitudinal assessment of the general population's attitudes toward people with mental illness after the reporting of attacks against two German politicians by two individuals with schizophrenia (Angermeyer and Matschinger 1996) indicate the public's increased desire for social distance and a growing tendency to view psychiatric patients as dangerous and unpredictable. However, the conclusion of the long-term effects of these reported crimes is unclear. Two years after the crimes took place, the desire for social distance was lower than immediately after the crime but still higher than before the crime. Another longitudinal study in the United Kingdom (Reda 1996) assessed public perceptions and attitudes toward persons with mental illness among 100 residents of an urban area prior to and following the opening in their neighborhood of a residential facility for former psychiatric patients. The interviews revealed negative attitudes toward persons with mental illness, attributed largely to how the media covered this event and the residents of the facility.

**Evidence From Experimental and Quasi-Experimental Research.** While these studies contribute to our understanding of how the media may influence mental illness stigma, survey research can provide only correlational evidence for the impact of the media on knowledge, attitudes, and behaviors regarding mental illness. Experimental or quasi-experimental research can begin to provide evidence about the link between exposure to media messages and mental illness stigma. Public education about mental illness is thought to be an important way to affect stereotypes and stigma (Corrigan and Penn 1999). It is assumed that more accurate information about mental illness will foster more positive attitudes toward persons with mental illness. A handful of recent studies have attempted to assess the impact of corrective information about mental illness by presenting different types and/or formats of information via the media.

To examine whether negative news reports of violent crimes by people with mental illness can be mitigated by corrective information, Thornton and Wahl (1996) examined the impact of four types of newspaper articles. The attitudes of 120 college students were assessed using the CAMI measure as well as a set of fear and danger scales. Two types of corrective information were presented: one addressing and attempting to correct misconceptions about mental illness, and a second discussing media distortion of mental illness. Participants who read the target

article (compared to those who did not) were more likely to indicate less acceptance of people with mental illness and more likely to endorse statements indicating perceived danger from and fear of persons with mental illness. However, the authors also found that participants who read either of the forms of corrective information prior to the target article reported more acceptance of persons with mental illness and less fear and perceived danger than those reading the target article without the corrective information. The authors conclude that corrective information may be effective in offsetting the effects of negative news reports about persons with mental illness but caution that generalization of the findings is limited because of the absence of a preexposure measure of attitudes.

However, corrective information provided to viewers of a televised film was not sufficient to counteract the stigmatizing impact of the film (Wahl and Lefkowits 1989). Wahl and Lefkowits (1989) attempted to reduce the negative effect on attitudes of a film depicting a killer who had a mental illness with a film trailer that explained the nonviolent nature of mental illness. The trailer, intended to reduce participants' fear of violence in mental illness, was shown on screen and read aloud, and presented at three points during the film (at the beginning, after the first commercial, and at the end of the film). Eighty-six college students were shown a film with and without the film trailer. A third group of 19 students viewed a film not about mental illness. Attitudes were assessed using CAMI measures after the film had been viewed. Findings indicate that those seeing the target film had significantly less favorable attitudes toward mental illness and community care than participants seeing the control film, regardless of whether they viewed a trailer with the target film. The information trailer did not mitigate the negative influence of the target film on participants' attitudes. The authors again point out the limits of generalizability of the findings given the lack of a preexposure measure of attitudes as well as the use of students in lieu of a sample more representative of the general population.

Other researchers, such as Penn et al. (2003) and Walker and Read (2002), also found that cognitive measures, such as attribution or causal explanations of mental illness, might change favorably after exposure to information about mental illness, but this did not translate to positive attitudes toward people with mental illness or ameliorate negative perceptions after subjects viewed a television documentary about mental illness. Specifically, Penn et al. (2003) examined whether a documentary depicting individuals with schizophrenia would reduce stigma. One hundred sixty-three individuals viewed one of three documentary films (on schizophrenia, polar bears,

or being overweight) or no film. The authors found that viewing the documentary about schizophrenia resulted in less likelihood to blame persons with schizophrenia for the disorder but had no impact on general attitudes about the disorder (e.g., perceived dangerousness) or on participants' intentions to interact with persons with schizophrenia.

Walker and Read (2002) explored whether different explanations for mental illness (a psychosocial vs. biogenetic/medical cause) would lead to different effects on attitudes among college students in New Zealand. Students saw one of three different 5-minute videos that first showed a doctor presenting one of three causal explanations (medical, psychosocial, or combined) for mental illness, followed by the same scene of a student describing his symptoms. Pre- and postexposure attitude measures indicated a tendency toward more negative than positive attitudes toward persons with mental illness. Use of a medical explanation did not improve attitudes, and in fact, perceptions of dangerousness and unpredictability were stronger among participants viewing the video with the medical explanation. The authors found that persons with previous contact with someone who had used psychiatric services had more positive attitudes.

One study found that a mediated message plus contact with a person with mental illness was more influential on attitudes than a message alone. Tolomiczenko et al. (2001) examined the impact of a video that described a successful story of homeless persons with mental illness on attitudes of viewers toward those individuals depicted. Nearly 600 high school students in Canada participated in one of three (control, video, or video plus discussion with a homeless person) versions of a 2-hour course. The authors found that females and persons with previous encounters with homeless persons had more positive attitudes after the educational session. However, when controlling for these effects, the video alone had a negative impact on attitudes compared to the other groups, and the video plus discussion had the most positive impact. The authors conclude that contact with members of stigmatized groups is important to reduce negative attitudes.

## Using Media as a Tool for Change

If the mass media can have a negative influence on the perception of mental illness, it is reasonable to expect that it should also be able to exert a positive influence to reduce stigma. The synthesis of findings from research on the role of the media in mental illness as well as other areas suggests the need to understand two processes of message production and how they work together. The first involves a better understanding of the nature of the messages and how more appropriate messages might be

developed. The second involves a better understanding of the role of media content producers (i.e., writers, journalists, newspaper editors, and producers of television shows, newscasts, or movies) in creating these messages. Can there be a shift to portrayals of mental illness that are unbiased and fair and that present the many points of view of people involved in mental health care? If so, how might this shift be accomplished?

One possible answer may be revealed by analyzing the production procedures of entertainment and news to gain an understanding of the forces that shape the message. Some researchers (Signorielli 1989; Nairn 1999; Salter and Byrne 2000) suggest that to challenge and change the media's current practices, the needs, values, and economic realities of journalists, screenwriters, and other producers of mass-mediated messages must be understood. Few empirical studies have explored media content producers' attitudes and knowledge about mental illnesses. Grierson and Scott (1995) found some evidence that producers of print news stories have more enlightened views of persons with mental illness than do the general population. Following a telephone survey of residents of Alabama, researchers mailed survey questions to editors and managing editors in Alabama. Results indicate that editors are less likely than the general public to consider persons with mental illness as dangerous and unpredictable, but editors also express resistance to hiring persons with mental illness.

The very nature of news production may influence the framing of mental illness in the mass media. First, conventional wisdom would suggest that more accurate information about mental illness will foster greater knowledge and more positive attitudes. Nairn et al. (2001) found that factual, correct information is often accurately represented in the media. However, while these news stories are based on balanced, scientific approaches, the end product reflects a negative slant that was absent in the original materials used for the story. The researchers conclude that to make a factual, unbiased document into a newsworthy story, the news media need to transform the information in a way that often results in a negative framing and a nonindividualized description of a mental illness that corresponds to traditional, stereotypical perceptions of these types of issues. Second, it has been suggested that as a way to reduce stigma, psychiatrists need to be more available to the media and more active as expert sources of information on mental illness. Nairn (1999) discovered that psychiatrists' opinions included in news articles were found to be ineffective because of journalists' need to create newsworthy articles rather than positive views of mental illnesses. Understanding how journalists and other media producers have to balance newsworthiness (which by its own nature dictates a simplistic message) and fair-

ness (which requires some level of complexity) to the subjects of their stories and news reports, is necessary for the media to be used as a tool for change. Allen and Nairn (1997), however, challenge the assumption that negative media depictions of mental illness occur because journalists are poorly informed or because "sensation sells." From a discourse analysis of news stories they conclude that media practices used to engage readers necessitate a style of writing requiring readers to draw upon "commonsense knowledge" that mental illnesses make people dangerous and unpredictable, thereby making readers co-creators of the text.

In entertainment television as well, narratives are often formulaic. Wilson et al. (1999a) analyzed 14 New Zealand television dramas to examine how dangerousness was constructed in media depictions of persons with mental illness. Using discourse analysis to examine the production features of the programs, they identified nine devices (appearance, music and sound effects, lighting, language, intercutting, jump-cutting, point of view shots, horror conventions, and intertextuality) as contributing to signifying the dangerousness of the person with mental illness. They suggest that mental health professionals must understand the practices and priorities of television production if they are to collaborate effectively with producers to create dramas that reflect the reality of mental illness.

Some suggest that to change the current media landscape, it is important to provide information and educational material to journalists. Smellie (1999) proposed a mental health short course for training young reporters that would cover medical, legal, and political issues in its curriculum, similar to the way in which journalists are taught reporting techniques for court, police, and government beats. Furthermore, general guidelines for journalists have been proposed. For example, Shain and Phillips (1991) stress the importance of presenting the mental status of a person in a story only if this is relevant to the news article. Shain and Phillips also echo the traditional plea to journalists to use terminology with precision, fairness, and expertise when describing individuals with mental illness and their symptoms.

## Identifying Gaps in the Research

A number of gaps are evident after examining the past 10 years of research on mental illness images in the media. In this section, key gaps in what is known about mental illness in the media are identified and directions for future research are suggested, addressing the three questions that have driven this review: (1) How is mental illness portrayed by the media? (2) How do media images of mental illness impact individuals' knowledge, beliefs, attitudes,

and behaviors with regard to mental illness? (3) How can media be used to reduce mental illness stigma?

**Gaps in Media Portrayal Research.** While a number of studies have examined the portrayal of mental illness in the media over the past decade (20 studies of the 34 in table 1), it is difficult to draw reliable conclusions or establish trends because of a number of factors. First, over half of the studies examine media outlets outside of the United States (10 studies: 7 in New Zealand, 1 in Australia, 1 in Germany, and 1 in the United Kingdom; table 1), making direct comparisons impossible because of the variety of media systems and cultural differences. Second, the disclosure of and precision of definitions are necessary for subsequent inference and comparison of analyses of different studies over time. Exactly how mental illness is defined and identified in some studies is unclear, and other studies examine only specific terms. Third, research has been limited to a relatively narrow range of media channels, most frequently prime-time television, newspapers, general circulation magazines, and films. For example, regarding television studies, research has continued to focus on network television to the exclusion of cable television and to focus on prime-time television to the neglect of television in other portions of the day (e.g., daytime, morning), with few exceptions. Also conspicuously absent is research that addresses specific various forms of advertising as well as new media. Fourth, little is known about contextual factors that may affect the nature of the depiction. For example, very little research has examined how different groups (e.g., consumers of mental health services, family and friends, health care providers, employers, landlords) are portrayed in terms of demographic characteristics such as age, sex, race, and ethnicity.

Given these concerns, more systematic research that catalogs and monitors images of mental illness across different genres and different media channels over time would enable documentation of the frequency and nature of images. Recent research seems to suggest that some media, such as general circulation magazines (Wahl and Kaye 1992), may present more accurate and positive depictions of mental illness than other media channels, such as prime-time television dramas or print news (Diefenbach 1997; Wahl et al. 2002). Although there seems to be a consensus that media depictions of mental illness are associated with violence and are generally negative, the current state of research cannot comment on whether all representations of mental illness in all media are similar. A lack of any systematic approach to examining images of mental illness across different media channels over time limits the construction of a composite picture of the universe of images that are typically depicted in the media. While people tend to consume a range of

different media channels in their "media diet," most previous research has examined a single media channel in isolation. A systematic approach to monitoring images of mental illness in the media would contribute to examining the "media diet" consumed by audiences and foster a better understanding of how different media work and how messages combine to affect audiences.

**Gaps in Media Impact Research.** The majority of empirical studies done in the past decade focus on media impact (14 studies; table 1). In this literature, two major sources of concern arise. One area of concern focuses on the nature of the subjects participating in research. For the most part, the majority of research on impact has claimed to focus on the "general public" while tending to use college students as the participants in studies. The use of students as convenience samples is prevalent in recent research and limits generalization of findings to adults in the community. Moreover, little research attention has focused on how persons with mental illness perceive the effects of images of mental illness in the media. People with mental illness are directly affected by the content of media channels too, because more than 40 percent of mental health consumers (Wahl 1999) or people who have schizophrenia (Dickerson et al. 2002) reported that they had often or very often been hurt or offended by messages in mass media. However, this audience has received little attention in empirical research. Research is also lacking on adolescents and children, two audiences who may be more impressionable when exposed to media images (Comstock 1993). Wahl's (2002) review underscores the need for additional research on the impact of media on children's views of mental illness.

While audience characteristics are of concern, by far the largest gap in the literature regarding mental illness and mass media to date is a lack of empirical evidence that *links* exposure to media content with depictions of mental illness and the formation and maintenance of knowledge, attitudes, and behaviors that perpetuate or reduce stigma. The handful of experiments (four since 1990; table 1) that have been conducted to assess impact have examined the role of information as an influence in correcting perceptions about persons with mental illness, with special attention to participants' perceptions about persons with mental illness being dangerous and unpredictable. However, studies are not comparable because of limitations in methodology (e.g., lack of pre- and post-exposure measures of attitudes) and the lack of generalizability of the studies because of the nature of the subjects (primarily college students). It is unclear whether media images have the most impact on knowledge, attitudes, or behaviors, or how media might best be employed to ameliorate mental illness stigma.

**Gaps in Using Media as a Tool for Change.** Research on the content and impact of media images of mental illness can also contribute to a better understanding of how media might be used to ameliorate mental illness stigma. However, few studies have examined directly how media might be used to reduce stigma (nine studies; table 1). Only four experimental studies (Thornton and Wahl 1996; Tolomiczenko et al. 2001; Walker and Read 2002; Penn et al. 2003) directly address the role of media in reducing mental illness stigma. Therefore, the cumulative findings provide little direction about how the content of media messages might be influential and warrant attention at a system or policy level. More research should address how images are created and disseminated by media content producers. Little is known about media content producers as an "audience" for messages from mental health advocates, consumers of mental illness, or others. In other health areas, such as suicide, guidelines have been developed for journalists on how best to cover suicide in the news to limit suicide contagion or "copycat" suicides (Gould 2001). Working with media in ways such as this may contribute to stigma reduction.

Corrigan and Penn (1999) warn that stigma is difficult to change. It is not simply a question of finding the most appropriate media channel; it is necessary to focus on beliefs people have about a person with mental illness rather than their perceptions about traits. And while promoting personal contact with a person with mental illness may be a significant factor (Holmes et al. 1999), not all contacts are equally effective (Corrigan and Penn 1999; Sadowet al. 2002). Although real-world experience with people with mental illness may be pivotal in overcoming stigma, it may be that the media can also serve as change agents when used as a proxy for promoting "personal" contact, depending on who and what is presented via which medium (e.g., print, video, or both) (Krauss 1995; Corrigan et al. 2001). Research on the impact of media images of mental illness might look more closely at other approaches to stigma research that have yet to address the role of the media.

## Conclusions

The goal of this review is to identify areas where research is needed. Studies done in the past decade are few, are limited in the scope of media they address, provide very little knowledge about the impact of media images of mental illness, and observe only short-term effects. However, the past decade of research reflects growing attention to other media sources besides television, including a heightened interest in newspapers and popular magazines, as well as the recognition of new media as an area for exploration. Unfortunately, research is virtually nonexistent on some types of media messages, such as advertising, and on some media channels and genres, such as radio and television talk shows, video games, and Web sites.

While the body of research examining images of mental illness in media is limited, the findings of these studies are consistent. Content analyses indicate that mental illness is consistently misrepresented in media depictions through exaggerations and misinformation. Depictions are inaccurate, both in representing people as violent and dangerous (Wahl 1992; Philo et al. 1994; Diefenbach 1997) and in the nature of the information about the disorders (Wahl 1992, 1995). The two outstanding conclusions of media portrayals of persons with mental illness are that they are associated with violence and that they are dangerous and should be avoided. Attempts to examine the impact of media images through surveys and experiments generally echo these conclusions.

Yet collectively, the findings of the 34 studies reviewed here lend at best circumstantial evidence to support the notion that media images perpetuate mental illness stigma. A link between media depiction and individuals' perceptions is still theoretical at this point. Replication and expansion of research in this area is required, and particular emphasis should be given to identifying links between exposure to media images and subsequent impact. Experimental work in this area is especially important.

Simply stated, *more precise* research is needed that examines both the content and the impact of images of mental illness in U.S. media. Future research should use more exactness in terminology defining mental illness and should examine a broader range of media channels with more discrete genres. Systematic research that monitors change in depictions across time and across the "media diet" consumed by different audiences is needed. The importance of replication and expansion of research cannot be overstated. Before considering how media might be used to ameliorate mental illness stigma, more experimental research must examine which media genres and channels may have which specific impact on which audiences under which circumstances. While what is known about the role of media in mental illness stigma has grown slowly over the past decade, this proposed research agenda offers new directions for inquiry in a research area of great potential that needs to be nurtured.

## References

Albrecht, G.L.; Walker, V.G.; and Levy, J.A. Social distance from the stigmatized: A test of two theories. *Social Science & Medicine,* 16:1319–1327, 1982.

Allen, R., and Nairn, R.G. Media depictions of mental illness: An analysis of the use of dangerousness. *Archives of Psychiatric Nursing*, 11(2):55–61, 1997.

American Psychiatric Association. *DSM–IV–TR, Diagnostic and Statistical Manual of Mental Disorders.* 4th ed., text revision. Washington, DC: APA, 2000.

Angermeyer, M.C., and Matschinger, H. The effect of violent attacks by schizophrenic persons on the attitude of the public toward the mentally ill. *Social Science & Medicine*, 43(12):172–180, 1996.

Angermeyer, M.C., and Schulze, B. Reinforcing stereotypes: How the focus on forensic cases in news reporting may influence public attitudes toward the mentally ill. *International Journal of Law and Psychiatry*, 24(4–5):469–486, 2001.

Bandura, A. Social cognitive theory of mass communication. In: Bryant, J., and Zillmann, D., eds. *Media Effects: Advances in Theory and Research.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1986. pp. 61–90.

Bandura, A. Social cognitive theory of mass communication. In: Bryant, J., and Zillmann, D., eds. *Media Effects.* Mahwah, NJ: Lawrence Erlbaum Associates, 2002. pp. 121–154.

Beaman, A.L. An empirical comparison of meta-analytic and traditional reviews. *Personality and Social Psychology Bulletin*, 17(3):252–257, 1991.

Bischoff, R.J., and Reiter, A.D. The role of gender in the presentation of mental health clinicians in the movies: Implications for clinical practice. *Psychotherapy: Theory, Research, Practice, Training*, 36(2):180–189, 1999.

Brown, K., and Bradley, L.J. Reducing the stigma of mental illness. *Journal of Mental Health Counseling*, 24(1):81–87, 2002.

Comstock, G. The medium and the society: The role of television in American life. In: Berry, G.L., and Asamen, J.K., eds. *Children and Television: Images in a Changing Sociocultural World.* Newbury Park, CA: Sage Publications, 1993. pp. 117–131.

Corrigan, P.W. Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Science and Practice*, 7(1):48–67, 2000.

Corrigan, P.W., and Penn, D.L. Lessons from social psychology on discrediting psychiatric stigma. *American Psychologist*, 54(9):765–776, 1999.

Corrigan, P.W.; River, L.P.; Lundin, R.K.; Penn, D.L.; Uphoff-Wasowski, K.; Campion, J.; Mathisen, J.; Gagnon, C.; Bergman, M.; Goldstein, H.; and Kubiak, M.A. Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin*, 27(2):187–195, 2001.

Coverdale, J.; Nairn, R.; and Claasen, D. Depictions of mental illness in print media: A prospective national sample. *Australian and New Zealand Journal of Psychiatry*, 36(5):697–700, 2002.

Day, D.M., and Page, S. Portrayal of mental illness in Canadian newspapers. *Canadian Journal of Psychiatry*, 31(9):813–817, 1986.

Dickerson, F.B.; Sommerville, J.; Origoni, A.E.; Ringel, N.B.; and Parente, F. Experiences of stigma among outpatients with schizophrenia. *Schizophrenia Bulletin*, 28(1):143–156, 2002.

Diefenbach, D.L. The portrayal of mental illness on prime-time television. *Journal of Community Psychology*, 25(3):289–302, 1997.

Epilepsy Foundation. The Entitled to Respect Campaign. *Epilepsy & Behavior*, 2(6):514–515, 2001.

Fox, S., and Fallows, D. Internet Health Resources: Pew Internet and American Life Project, July 16, 2003. http://www.pewinternet.org/reports/toc/asp?Report=95. Accessed April 12, 2004.

Gabbard, G.O., and Gabbard, K. Cinematic stereotypes contributing to the stigmatization of psychiatrists. In: Fink, P.J., and Tasman, A., eds. *Stigma and Mental Illness.* Washington, DC: American Psychiatric Press, 1992. pp. 113–127.

Gerbner, G. Mental illness on television: A study of censorship. *Journal of Broadcasting*, 3:293–303, 1959.

Gerbner, G.; Gross, L.; Morgan, M.; Signorielli, N.; and Shanahan, J. Growing up with television: Cultivation processes. In: Bryant, J., and Zillmann, D., eds. *Media Effects: Advances in Theory and Research.* Mahwah, NJ: Lawrence Erlbaum Associates, 2002. pp. 43–68.

Gerbner, G.; Morgan, M.; and Signorielli, N. Programming health portrayals: What viewers see, say, and do. In: Pearl, D.; Bouthilet, L.; and Lazar, J., eds. *Television and Behavior: Ten Years of Scientific Progress and Implications for the 1980s.* Vol. 2. *Technical Reviews.* Rockville, MD: U.S. Department of Health and Human Services, 1982. pp. 291–307.

Gould, M.S. Suicide and the media. In: Hendin, H., and Mann, J.J., eds. *The Clinical Science of Suicide Prevention: Annals of the New York Academy of Sciences.* New York, NY: New York Academy of Sciences, 2001. pp. 200–224.

Granello, D.H., and Pauley, P.S. Television viewing habits and their relationship to tolerance toward people with mental illness. *Journal of Mental Health Counseling*, 22(2):162–175, 2000.

Granello, D.H.; Pauley, P.S.; and Carmichael, A. Relationship of the media to attitudes toward people with mental illness. *Journal of Humanistic Counseling, Education, and Development,* 38(2):98–110, 1999.

Grierson, D., and Scott, R. Comparison of attitudes of editors and public toward mental illness. *Newspaper Research Journal,* 16(1):95–102, 1995.

Griffiths, K.M., and Christensen, H. Quality of web-based information on treatment of depression: Cross-sectional survey. *British Medical Journal,* 321:1511–1515, 2000.

Holmes, E.P.; Corrigan, P.W.; Williams, P.; Canar, J.; and Kubiak, M.A. Changing attitudes about schizophrenia. *Schizophrenia Bulletin,* 25(3):447–456, 1999.

Krauss, S.J. Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and Social Psychology Bulletin,* 21:58–75, 1995.

Krippendorff, K. *Content Analysis: An Introduction to Its Methodology.* Newbury Park, CA: Sage, 1980.

Levey, S., and Howells, K. Dangerousness, unpredictability, and the fear of people with schizophrenia. *Journal of Forensic Psychiatry,* 6(1):19–39, 1995.

Link, B.G., and Cullen, F.T. Contact with people with mental illnesses and perceptions of how dangerous they are. *Journal of Health and Social Behavior,* 27:289–303, 1986.

Link, B.G.; Cullen, F.T.; Struening, E.; Shrout, P.E.; and Dohrenwend, B.P. A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review,* 54:400–423, 1989.

Link, B.G., and Phelan, J.C. Labeling and stigma. In: Aneshensel, C.S., and Phelan, J.C., eds. *Handbook of the Sociology of Mental Health.* New York, NY: Kluwer Academic, 1999. pp. 481–494.

Link, B.G.; Phelan, J.C.; Bresnahan, M.; Stueve, A.; and Pescosolido, B.A. Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health,* 89(9):1328–1333, 1999.

Lopez, L.R. Adolescents' attitudes toward mental illness and perceived sources of their attitudes: An example of pilot data. *Archives of Psychiatric Nursing,* 5(5):271–280, 1991.

Lyons, M., and Ziviani, J. Stereotypes, stigma, and mental illness: Learning from fieldwork experiences. *American Journal of Occupational Therapy,* 49(10):1002–1008, 1995.

Nairn, R. Does the use of psychiatrists as sources of information improve media depictions of mental illness? *Australian and New Zealand Journal of Psychiatry,* 33(4):583–589, 1999.

Nairn, R.; Coverdale, J.; and Claasen, D. From source material to news story in New Zealand print media: A prospective study of the stigmatizing processes in depicting mental illness. *Australian and New Zealand Journal of Psychiatry,* 35:654–659, 2001.

Neuendorf, K.A. Health images in the mass media. In: Ray, E.B., and Donohew, L., eds. *Communication and Health: Systems and Applications.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1990. pp. 111–135.

Neuendorf, K.A. *A Content Analysis Guidebook.* Thousand Oaks, CA: Sage, 2002.

Nunnally, J.C. *Popular Conceptions of Mental Health.* New York, NY: Holt, Rinehart and Winston, 1961.

Penn, D.L.; Chamberlin, C.; and Mueser, K.T. Effects of a documentary film about schizophrenia on psychiatric stigma. *Schizophrenia Bulletin,* 29(2):383–391, 2003.

Phelan, J., and Link, B. The growing belief that people with mental illnesses are violent: The role of the dangerousness criterion for civil commitment. [Electronic version]. *Social Psychiatry and Psychiatric Epidemiology,* 33(Suppl 1):S7–S12, 1998.

Phelan, J.C.; Link, B.G.; Stueve, A.; and Pescosolido, B.A. Public conceptions of mental illness in 1950 and 1996: What is mental illness and is it to be feared? *Journal of Health and Social Behavior,* 41:188–207, 2000.

Philo, G. Media and mental illness. In: Philo, G., ed. *Message Received.* Harlow, U.K.: Addison Wesley Longman, 1998. pp. 54–61.

Philo, G.; Secker, J.; Platt, S.; Henderson, L.; McLaughlin, G.; and Burnside, J. The impact of the mass media on public images of mental illness: Media content and audience belief. *American Journal of Public Health,* 89:1339–1345, 1994.

Reda, S. Public perceptions of former psychiatric patients in England. *Psychiatric Services,* 47(11):1253–1255, 1996.

Sadow, D.; Ryder, M.; and Webster, D. Is education of health professionals encouraging stigma towards the mentally ill? *Journal of Mental Health,* 11(6):657–665, 2002.

Salter, M., and Byrne, P. The stigma of mental illness: How you can use the media to reduce it. *Psychiatric Bulletin,* 24:281–283, 2000.

Shain, R.E., and Phillips, J. The stigma of mental illness: Labeling and stereotyping in the news. In: Wilkins, L., and Patterson, P., eds. *Risky Business: Communicating Issues of Science, Risk, and Public Policy.* New York, NY: Greenwood Press, 1991. pp. 61–74.

Signorielli, N. The stigma of mental illness on television. *Journal of Broadcasting and Electronic Media,* 33(3):325–331, 1989.

Signorielli, N. Health images on television. In: Jackson, L.D., and Duffy, B.K., eds. *Health Communication Research*. Westport, CT: Greenwood Press, 1998. pp. 163–179.

Smellie, P. Feeding stereotypes. *Quill*, 87(2):25–28, 1999.

Taylor, W.L. Gauging the mental health content of the mass media. *Journalism Quarterly*, 34:191–201, 1957.

Taylor, S.M., and Dear, M.J. Scaling community attitudes toward the mentally ill. *Schizophrenia Bulletin*, 7(2):225–240, 1981.

Thornton, J.A., and Wahl, O.F. Impact of a newspaper article on attitudes toward mental illness. *Journal of Community Psychology*, 24(1):17–25, 1996.

Tolomiczenko, G.S.; Goering, P.N.; and Durbin, J.F. Educating the public about mental illness and homelessness: A cautionary note. *Canadian Journal of Psychiatry*, 46:253–257, 2001.

Tringo, J.L. The hierarchy of preference toward disability groups. *Journal of Special Education*, 4:295–306, 1970.

U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General*. Rockville, MD: Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

Wahl, O.F. Mass media images of mental illness: A review of the literature. *Journal of Community Psychology*, 20:343–352, 1992.

Wahl, O.F. *Media Madness: Public Images of Mental Illness*. New Brunswick, Canada: Rutgers University Press, 1995.

Wahl, O.F. Mental health consumers' experience of stigma. *Schizophrenia Bulletin*, 25(3):467–478, 1999.

Wahl, O.F. Obsessive-compulsive disorder in popular magazines. *Community Mental Health Journal*, 36(2):307–312, 2000.

Wahl, O.F. Children's view of mental illness: A review of the literature. *Psychiatric Rehabilitation Skills*, 6(2):134–158, 2002.

Wahl, O.F. Depictions of mental illnesses in children's media. *Journal of Mental Health*, 12(3):249–258, 2003.

Wahl, O.F.; Borostovik, L.; and Rieppi, R. Schizophrenia in popular periodicals. *Community Mental Health Journal*, 31(3):239–248, 1995.

Wahl, O.F., and Kaye, A.L. Mental illness topics in popular periodicals. *Community Mental Health Journal*, 28(1):21–28, 1992.

Wahl, O.F., and Lefkowits, J.Y. Impact of a television film on attitudes toward mental illness. *American Journal of Community Psychology*, 17(4):521–528, 1989.

Wahl, O.F., and Roth, R. Television images of mental illness: Results of a metropolitan Washington media watch. *Journal of Broadcasting*, 26(2):599–605, 1982.

Wahl, O.F.; Wood, A.; and Richards, R. Newspaper coverage of mental illness: Is it changing? *Psychiatric Rehabilitation Skills*, 6(1):9–31, 2002.

Wahl, O.F.; Wood, A.; Zaveri, P.; Drapalski, A.; and Mann, B. Mental illness depiction in children's films. *Journal of Community Psychology*, 31(6):553–560, 2003.

Walker, I., and Read, J. The differential effectiveness of psychosocial and biogenetic causal explanations in reducing negative attitudes toward "mental illness." *Psychiatry: Interpersonal and Biological Processes*, 65(4):313–325, 2002.

Williams, M., and Taylor, J. Mental illness: Media perpetuation of stigma. *Contemporary Nurse*, 4(1):41–46, 1995.

Wilson, C.; Nairn, R.; Coverdale, J.; and Panapa, A. Constructing mental illness as dangerous: A pilot study. *Australian and New Zealand Journal of Psychiatry*, 33:240–247, 1999a.

Wilson, C.; Nairn, R.; Coverdale, J.; and Panapa, A. Mental illness depictions in prime-time drama: Identifying the discursive resources. *Australian and New Zealand Journal of Psychiatry*, 33:232–239, 1999b.

Wilson, C.; Nairn, R.; Coverdale, J.; and Panapa, A. How mental illness is portrayed in children's television: A prospective study. *British Journal of Psychiatry*, 176:440–443, 2000.

Wolf, F.M. *Meta-Analysis: Quantitative Methods for Research Synthesis*. Beverly Hills, CA: Sage Publications, 1986.

Yankelovich, D.Y. "Public Attitudes Toward People With Chronic Mental Illness." Unpublished manuscript prepared for the Robert Wood Johnson Foundation Program on Chronic Mental Illness, 1990.

## The Authors

Patricia A. Stout, Ph.D., is Professor, University of Texas at Austin, Austin, TX. Jorge Villegas, Ph.D., is Assistant Professor, University of Florida, Gainesville, FL. Nancy A. Jennings, Ph.D., is Assistant Professor, University of Cincinnati, Cincinnati, OH.