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Interaction Model of Client Health Behavior and Womanist Thought

Effective communication positively influences the quality of client-provider interaction, client behaviors, and health outcomes (Brown, Stewart, & Ryan, 2003; Stewart, 1995; DiMatteo, 1994). In fact, *Healthy People 2010* objectives recognize the impact of quality client-provider communication in improving quality of care and the health status of individuals (US Department of Health and Human Services [USDHHS], 2003). Specific recommendations include improving provider-patient relationships through effective communication skills training and increasing the proportion of patients who are satisfied with their providers' communication skills (USDHHS, 2003). Yet, majority of the research on client-provider communication has predominantly been exploratory in nature due to lack of theoretical frameworks to guide investigators and applied mainly to client-physician relationships in primary care (Roter & McNeilis, 2003; Yi, 2005). Currently, existing models of client-provider communication are limited in scope, not consistently used, and fail to address role of context in the medical encounter (Street, 2003). The purpose of this paper is to discuss racial/ethnic disparities in pregnancy outcomes, examine the current literature on the racial/ethnic differences in client-provider communication research, provide a brief overview regarding the current models of client-provider interaction (communication), and explore a new hybrid model of client-provider interaction

Despite advances in medical care, technology and services, racial/ethnic disparities in reproductive birth outcomes have remained unchanged or increased for more than a decade (Hoyert, Mathews, Menacker, Strobino, & Guyer, 2006; Martin, Kochanek, Strobino, Guyer, & MacDorman, 2005). Consistently, the rate of infant mortality for African American women as compared to White women has been at least twice as high (Hoyert et al., 2006). Additionally, Low birth weight (LBW) (<2500g, 5.8 lbs), is the leading cause of infant mortality (Matthews,

Menacker, & MacDorman, 2003) for African American women and was approximately double the rate for white women (13.5% vs. 7%) in 2003 (Martin et. al., 2005). African-American mothers as compared to White mothers are also 60% more likely to deliver preterm and have three times the risk for extreme prematurity. (Fiscella, 2005).

Past studies have examined maternal factors during pregnancy such as low socioeconomic status (SES), environment, genetics, social and psychological stressors, maternal risky behavior, lack of prenatal care, and perinatal infections as possible explanations for poor birth outcomes in African American infants (Lu & Halfon, 2003; Hogan, Njoroge, Durant, & Ferre, 2001). However, the etiology of the persistent racial/ethnic disparities in birth outcomes remains unclear and not well understood. Recent studies, however, have suggest that African Americans in general and in particular, African-American pregnant women are more likely to receive unequal treatment (Beach, Hill-Briggs, & Cooper, 2005; Brett, Schoendorf, & Kiely, 1994; Kogan, 1994; Lu & Halfon, 2003; Wiltshire, Cronin, Sarto, & Brown, 2006). For example, a recent review by Lu & Halfon (2003) found that African-American women as compared to White women were less likely to receive advice about health risks (Kogan, 1994), less likely to receive pelvic examinations, blood or urine tests, or screening for hypertension, and less likely to receive ultrasound, amniocentesis, and tocolytic treatment (Brett, Schoendorf, & Kiely, 1994).

Despite the wealth of literature that explicates the disparities in pregnancy health experiences and outcomes for African American women, there is a paucity of documented literature that identifies the mechanisms underlying the disparities in prenatal care experiences or changes that need to occur to improve the quality and effectiveness of prenatal care received. As a result, Healthy People 2010 goals related to eliminating differences in prenatal health care, access, and treatment will not be achieved unless researchers explore other influencing factors,

such as client-provider communication patterns. More specifically, there is growing body of that point to the importance of client-provider communication as an important determinant of quality prenatal care. In fact, women receiving high quality communication with their providers during pregnancy are more likely to have favorable pregnancy outcomes (Sable & Herman, 1997). Importantly, clients rated communication as the second most essential element of outpatient care (Laine et.al., 1996). Therefore, not surprisingly, the most commonly perceived barrier related to effective prenatal care identified by low income pregnant women was communication between the women and provider (Moore, Ketner, Walsh, & Wagoner, 2004). This may be especially relevant given that African-American women are more likely to mistrust their provider and have negative past experiences with their providers (Gonzalez-Calvo, Jackson, Hansford, &Woodman, 1998; Mikhail, 1999), experiences with discrimination (Dole et.al., 2004), and report poor client-provider communication (Teagle & Brindis, 1998, Moore, Ketner, Walsh, & Wagoner, 2004). A recent study revealed that African American women as compared to white women are less likely to seek and discuss health information. This was even more significant in near-poor (100-199% federal poverty level) African American women than non-poor (200% and up) white women (Wiltshire, Cronin, Sarto, & Brown, 2006) Moreover, physicians spend lower proportion of time in providing health education, answering questions, assessing clients' health knowledge, and chatting with African Americans than with white clients (Oliver, Goodwin, Gotler, Gregory, & Stange, 2001). In examining communication patterns, physicians were more verbally dominant, used less client-centered communication, and exhibited lower positive affect with African Americans than with white clients (Johnson, Roter, Powe, & Cooper, 2004). Also, physicians were more likely to adopt a "narrowly biomedical" communication style with African Americans and poorer clients (Roter, Stewart, Putnam, Lipkin, Stiles, & Inui, 1997).

Additionally, the differences in communication patterns are evident to African American clients. Studies have shown that African Americans rated their physicians as having lower participatory decision-making style (Cooper et.al., 1999; Kaplan, Gandek, Greenfield, Rogers, & Ware, 1995) and perceived lower participatory visits with white physicians than with African American physicians (Cooper et.al. , 1999). In a national survey, compared to white participants, all ethnic minority groups believed that they would have received better health care if they were of different race and/or ethnicity and more likely to feel treated with disrespect (Collins, Hughes, Doty, Ives, Edwards, & Tenney, 2002). Perceptions' of inferior care and mistrust in providers and with the healthcare system for ethnic minority groups and specifically for African Americans stem from long history of racial discrimination and other medical abusive treatment of African Americans by white providers (IOM, 2003). The real or perceived discrimination experienced by African American clients lead to lower satisfaction of care ratings (LaVeist, Nickerson, & Bowie, 2000), delays in seeking treatment, and produce negative health and mental outcomes (Williams, 1999; Kessler, Mickelson, & Williams, 1999). In fact, African Americans as compared to Whites were four times more likely to perceive discrimination in medical settings, more likely to mistrust the healthcare systems (LaVeist, Nickerson, & Bowie, 2000) and believe to receive lower quality of healthcare as compared to whites (Lillie-Blanton et.al., 2000). Specifically, in a cross-sectional survey of young (age 18-39 years old), healthy (no major health problems, no chronic medications) African American women, Watson and colleagues (2002) found that African American women as compared to their White counterparts were less likely to talk to someone when treated unfairly and perceived more discrimination at every education level. In addition, several studies exist to show that race concordant relationships (African American clients with African American providers) are associated with higher satisfaction,

healthcare utilization, and ratings' of care (LaVeist & Carroll, 2002; Cooper-Patrick et.al.,1999; Saha et.al., 1999). Thus, racial/ethnic differences in treatment and reports of poor client-provider communication may be explained partly by lack of racial concordance between clients and providers.

Since racial/ethnic differences in client-provider communication and unequal treatment exist, the intricate and dynamic process of client-provider communication need to be re-examined. Specifically, the provider's approach to the clinical encounter will be described from the perspectives of medicine and nursing to explicate the details of the client-provider interaction. The traditional biomedical method, or the illness-centered model, focuses on signs and symptoms based on the physical pathology of the person that is directed by the provider (McWhinney, 1989). Though the traditional biomedical method informs providers to derive a clinical diagnosis and conduct physical examination systematically and objectively, The traditional biomedical method fails to understand the subjective meaning of the illness for the client or to view the client in the context of his/her life or culture (McWhinney, 1989). To meet this need, the biopsychosocial (BPS) model and Kleinman's explanatory models (EM) were developed. The BPS model uses a systems theory approach to integrate the biological, psychological, and social information collected in the clinical encounter and requires the provider to consider the milieu interior, the person, and the level of interpersonal relationship (Engel, 1980). Kleinman's EM examines the provider-client relationship through an anthropological perspective. Each person has a set of personal beliefs used to interpret, cope, and make sense of the illness experience that forms the person's EM (Kleinman, Eisenberg, & Good, 1978). Providers attempt to understand the person's meaning of the illness experience or the person's EM by asking specific questions, interpreting the person's EM, and if needed,

negotiating between the two conflicting views (Kleinman, Eisenberg, & Good, 1978).

Both the BPS and Kleinman's EM are widely accepted in medicine and provide new approaches to understanding the provider-client interaction more holistically, but has not made an impact on clinical practice. The BPS does not provide a prescription for clinical action while Kleinman's EM offers questions that are specific, but still mainly with a biomedical orientation. In addition, clients do not disclose their intimate thoughts and feelings in response to the questions; rather, intimate disclosures occur when providers respond to patient's subtle cues within the context of the encounter (McWhinney, 1989).

Consequently, medicine's response to holistic approach to care is the Patient-Centered Clinical Method (PCCM). The PCCM is developed from the perceptions of healthcare provider's experiences in their interactions with clients. The PCCM is considered the "transformed clinical method" (McWhinney, 1989; Weston & Brown, 1995) since it seeks to understand the expectations, feelings, and fears from the client's perspective rather than the provider's perspective. Therefore, in an attempt to understand the illness from a client-centered perspective, the provider dismisses his preconceived judgments and preconceptions and enters the client's world (McWhinney, 1989). By entering the client's world and the idea of dismissing one's view about the other in the PCCM is further extended with Munhall's descriptive process of "unknowing" in nursing practice. According to Munhall, an authentic encounter occurs when each person dismisses his/her own perceptions about the other person's worldview (Munhall, 1993). Thus, during a clinical encounter, two unique subjective realties are present between the client and the provider. When the two realities interact, intersubjectivity occurs. This "in-between" space or the "shared perceptual field" between the client and the provider becomes

whole when both the client and the provider mutually communicate, analyze, and interpret the experience (Munhall, 1993).

Although the PCCM and the concept of Unknowing demonstrate a client-centered approach to care, both models have limitations. Specifically, the idea of unknowing may be appreciated by some clinicians, but the philosophical complexities underlying the art of unknowing is not practical for the average adult. In contrast, the PCCM is basic in its theoretical assumptions, mainly that the provider needs to understand the client's experience of the illness, and provides little guidance on outcomes of the client-provider interaction. In addition, the word "patient" is defined as a person who requires medical care (Encarta World Dictionary, 2006). Patient as indicated by the PCCM assumes a physical state in which the person is ill. Thus, the provider and "patient" relationship is already initially framed from the perspective where unequal amount of dominance/control exists. Although in many clinical settings individuals are ill, pregnant women receiving prenatal care are considered healthy until proven otherwise. Unlike medicine's approach to holistic care, nursing has specifically reframed the word "patient" to "client" as indicated by the Interaction Model of Client Health Behavior (IMCHB).

Nursing's response to a theoretical framework to guide the client-provider relationship is the IMCHB (See Figure 1). The IMCHB is a client-centered model developed from a provider's perspective that explains the relationship between client singularity, client-provider interaction, and resulting client health behaviors and outcomes (Cox, 1982; Cox, 1984; Marion & Cox, 1996). The focus of IMCHB is on the multidirectional process by which individual client variables and the client-provider interaction affect health outcomes. The theoretical assumptions of the IMCHB regard the client as a unique, holistic, and dynamic individual capable and able to make choices regarding their health behavior (Cox, 1982, 1984). The client is viewed as an

active participant in the healthcare process who initiated the provider-client relationship (Cox, 1982). According to Cox (2003), the more 'tailored' the intervention is to the uniqueness of the individual client (singularity), the greater the likelihood of positive health outcomes.

The elements of client's singularity are divided into background and dynamic variables. The background variables are more static and difficult to change by the client-provider interaction. This includes the person's demographic characteristics (eg. SES, health status, education, race), previous healthcare experience (e.g. past medical history and experiences with healthcare), environmental resources (e.g. financial/economic resources), and social influences (e.g. social factors that influence health such as amount and consistency of support, cultural influences) (Cox, 2003). The dynamic variables of cognitive appraisal (knowledge, attitudes, beliefs), intrinsic motivation (self-determination), and affective response (emotional response) are more likely to be amenable to change during the client-provider interaction to produce health outcomes (Cox, 1982, 1984, 2003). The elements of the client-professional interaction are the crux of the model since it influences both elements of client singularity and elements of health outcomes. This includes affective support (process of attending to client's emotional arousal and building an affiliative bond), health information (process of providing health information that is pertinent to the client's situation), decisional-control (client's expectation of having the power to make decisions), and professional/technical competencies (therapeutic/skills of provider) (Cox, 1982, 1984, 2003).

Although the IMCHB provides a useful framework for practice-oriented research, the entire model has not been rigorously tested and not constructed for a specific ethnic group. In addition, little model testing has focused on the elements of client-provider interaction (Carter & Kulbok, 1995; DiNapoli, 2003). To date, only two studies have examined client-provider

elements of IMCHB. Brown (1992) conducted a qualitative study on the IMCHB concept of tailoring of provider-client interaction during visits with a nurse practitioner and two white pregnant adult clients receiving prenatal care. The prenatal care visits were audio-taped, transcribed, and elements of client singularity (eg. background variables of the clients, intrinsic motivation, cognitive appraisal, affective response) and client-provider interaction (e.g. affective support, health information, decisional control) were identified. Brown concluded that the most significant finding related to tailoring was "that client singularity frequently constituted the content during these [client-provider] discourses" (p.43). Brown reported that "clients spoke most frequently about their background/personal issues" and "shared their cognitive thinking about their health state" (p.43) and provider-client interaction was based on client individuality.

Bear and Holcomb (1999) operationalized the client-professional interaction construct of Cox's model with African American children (77%) and adults. The authors reported that provider-client interaction in primary care visits included: affective support (e.g. active listening to elicit client's concerns and beliefs), health information (e.g., providing knowledge about the health exam), goal-setting (e.g., "helping clients to be aware of what they do and do not do to maintain health [and]…assisting clients to see the relationship between their behaviors and specified outcomes" (p. 82)), and technical skills (e.g., diagnosis and treatment). Provider-client interaction varied with client age; for example, adolescents were given less health information than adults.

Despite the impact of client-provider interaction, the IMCHB and its assumptions needs to be further expanded and tested to understand the relevance and applicability to the African American adult population. For instance, to better understand client-provider interaction from the perspective of African American women, the model assumptions from IMCHB needs to be

expanded to incorporate the unique individual and collective experiences shared by African American women.

Mainly, theoretical frameworks that are developed by and for African American women are referred to as "womanist thought" (Banks-Wallace, 2000). In her classic work on African American feminist thought, Collins discusses four dimensions of womanist epistemology: lived experience as a criterion of meaning, use of dialogue in assessing knowledge claims, ethics of caring, and ethic of personal accountability (Collins, 2000). For African American women, two types of knowing exist, knowledge and wisdom, and it is the personal lived experiences that distinguishes the difference between the two (Collins, 2000; Banks-Wallace, 2000). According to Collins (2000), women are deemed more credible and believable when they have personally lived through the experiences. The importance of lived experience is partially congruent with Cox's assumption of the uniqueness of the client and the elements included in client singularity. By assessing the elements included in client singularity (eg. individual's demographics, previous healthcare experiences, social influences, and environmental resources), the provider is allowing the women to share past life and healthcare experiences. In the research design, providing opportunities for women to share their perceptions of their prenatal care encounter will facilitate the credibility of the research.

The use of dialogue in assessing knowledge claims implies the ability to share experiential knowledge with others and assumes the emphasis of connectedness in the African American community (Collins, 2000; Banks-Wallace, 2000). The active voice that is present in everyday speech signifies the emphasis placed on language that conveys the struggles of oppression and the desire to promote a unique African American culture (Banks-Wallace, 2000). Thus, the clinical encounter should be considered a dialogue between two people and it is within

this dialogue, trust and sense of connectedness is built. The research design should also then assess the communication, perceptions of trust and respect between the client and the provider during the prenatal encounter.

        The ethic of caring is composed of personal expressiveness, emotions, and empathy (Collins, 2000). Personal expressiveness, a view that considers each individual unique is highly congruent with Cox's assumptions. For African American women, communication is more than mere words. Emotions as expressed by the speaker's tone are indicative of the person's beliefs (Banks-Wallace, 2000). Empathy is a sense of connection between the provider and the client. Due to an extended history of oppression and ongoing racism/discrimination experienced by African American women, the research design should incorporate elements of perceived racism/discrimination.

        An ethic of personal accountability is connected to the individual's character, values, and ethics (Collins, 2000). For the African American women, knowledge claims associated with individuals who are respected for their ethics and morals are more valued than those offered by less respected figures (Collins, 2000). Practically, providers are encouraged to share their values and beliefs with the women. In return, if the beliefs are respected, it will help build a trusting relationship and increase the likelihood to deem the provider as technically competent. In research, the investigators need to be prepared to share their personal lived experiences and actively show their commitment to the African American community that extends beyond the immediate research study.

        The four dimensions of womanist thought do not stand in contradiction to the assumptions and constructs displayed in the IMCHB. Rather, the womanist thought expands the assumptions of the IMCHB by emphasizing the cultural values that are important to African

American women. Consequently, a theoretical framework that has not been specifically developed for African American women should incorporate views that have value to the population being investigated. Thus, incorporating the dimensions of womanist thought to the assumptions of IMCHB is a way to conduct research designs that have culturally appropriate relevance to African American women.

As indicated by Figure 2, the IMCHB has been modified by including the addition of client and provider's perceptions of communication, perceived discrimination, trust, and respect during the prenatal care encounter. In addition to client-provider interaction, client's perceptions of provider's communication affect health outcomes.

Stewart and colleagues showed that when clients' perceived that their providers described the problem and management plan, answered their questions, and used shared decision-making, improvements in health status were reported and efficient care was delivered (2000). Unfortunately, the investigators did not include race/ethnicity in the article.

To investigate the effect of client-provider communication and health outcomes, the author proposes a descriptive, cross-sectional, mixed-method study. The purpose of the study is to examine client-provider communication and perceptions of communication on the quality and effectiveness of prenatal care when providers are racially concordant and disconcordant with African American women. In the proposed mixed-method descriptive study, 18-35 year old African American (N=45) women who are in their first trimester and their providers (N=10-12) will be recruited from prenatal care clinics at two large hospitals in Southeastern Michigan. Audio-recordings will be analyzed by the Roter Interaction Analysis System (RIAS) to describe the content and the process of client-provider communication.

RIAS codes the smallest unit of expression or statement, expressed by each speaker

during the medical dialogue (Roter & Larson, 2001). The RIAS categories are tailored to

directly reflect the content and context of the clinical encounter and is divided into four

functional groupings: client education and counseling, data gathering, building a relationship,

and activating and partnering (Roter & Larson, 2001). The four functional groupings of the

RIAS can be divided into the constructs represented by client-provider interaction (eg. affective

support, health information, and decisional control) of the IMCHB. The RIAS will quantify

various measures of communication such as provider vs client verbal dominance, amount of

social, positive, negative, emotional talk, use of participatory facilitators, procedural talk, etc.

(Roter, 2002). In addition, the RIAS assesses for the tonal qualities (eg. anger, anxiety,

dominance, interest, and friendliness) of the interaction (Roter, 2002). The RIAS has been

demonstrated to have reliability averages of 0.85, demonstrated high levels of predictive and

concurrent validity, and have been used in multiple ethnic populations, clinical settings, and

internationally (Roter & Larson, 2002).

Two coders will rate the content categories and the global emotional tone of client and

provider separately using a five-point scale. Communication categories that will be coded are as

follows: biomedical topics, psychosocial adjustment, data gathering, socioemotional talk,

emotional talk, and partnership-building (Roter, Geller, Bernhardt, Larson & Doksum, 1999).

Also, the average length of visit, the ratio of client and provider talk (verbal dominance), global

emotional affect of provider and client, and client and provider communication control scores

(client questions, provider answers and counsels vs provider questions, client gives medical

information) will be calculated.

Immediately after the clinical encounter, face- to- face semi-structured, private interviews

will be conducted to describe the perceptions of African American women and their providers

about their communication, perceived discrimination, respect, trust, and intention to adhere to recommended treatment. Sample client interview questions will include how one's ethnic identity influences their sense of self and health, how one's previous healthcare experiences influences their communication with their providers, and how much the provider answered questions, described the problem, and involved the client in the decision-making. The audio-recordings and interviews will be divided to get an even mixture of racially concordant and dis-concordant providers and clients. The interviews will be transcribed and qualitative content analysis using modifiable coding system will be used to analyze the interview transcripts (Sullivan-Bolyai, Bova, & Harper, 2005).
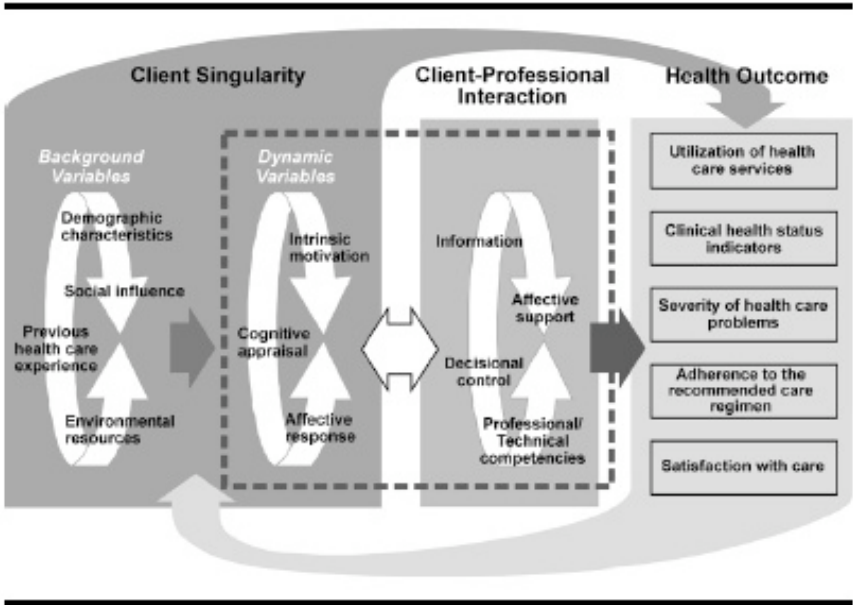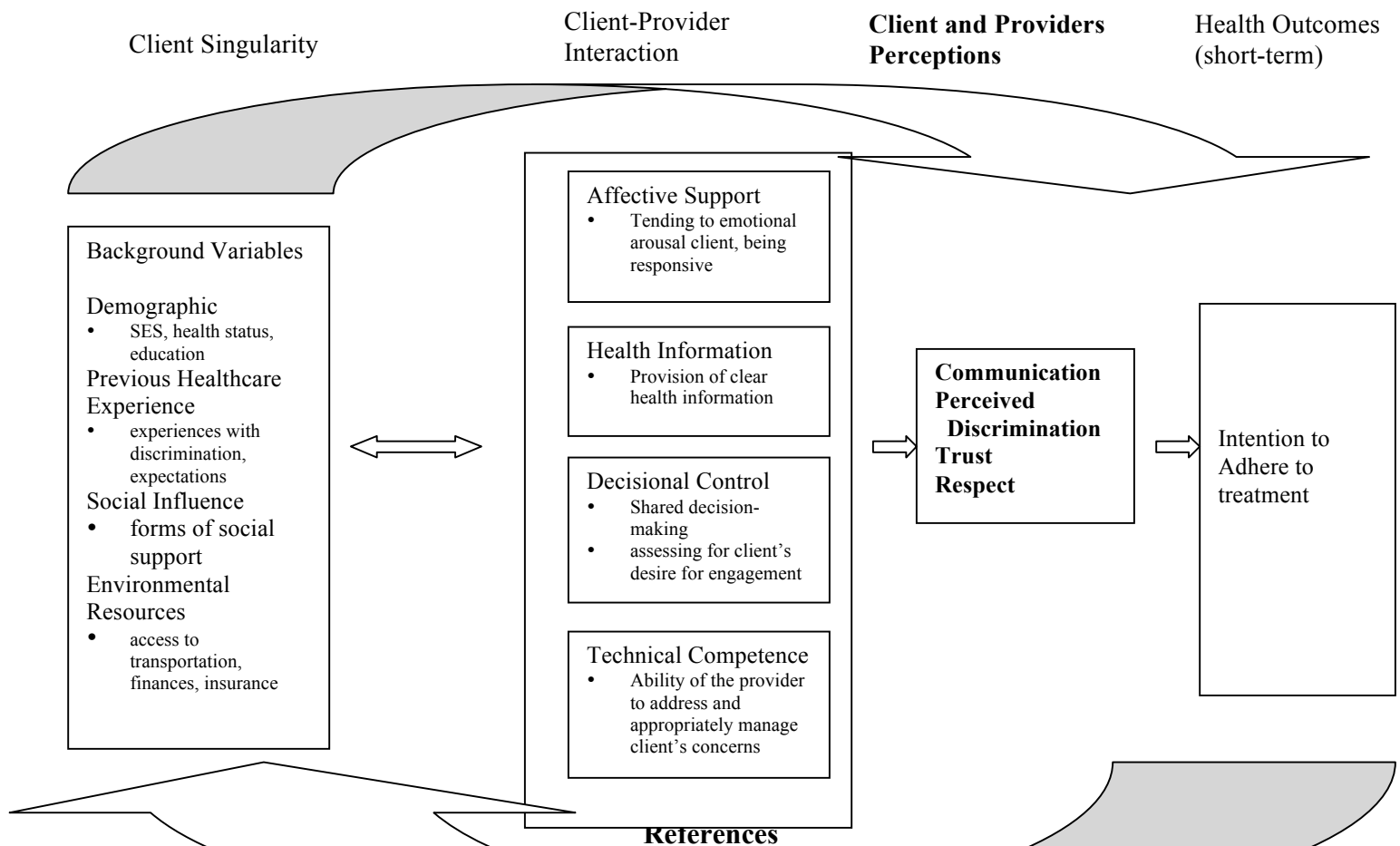

Figure 1. Interaction Model of Client Health Behavior

Figure 2: Interaction Model of Client Health Behavior Modified

Client Singularity	Client-Provider Interaction	**Client and Providers Perceptions**	Health Outcomes (short-term)

Background Variables

Demographic
- SES, health status, education

Previous Healthcare Experience
- experiences with discrimination, expectations

Social Influence
- forms of social support

Environmental Resources
- access to transportation, finances, insurance

Affective Support
- Tending to emotional arousal client, being responsive

Health Information
- Provision of clear health information

Decisional Control
- Shared decision-making
- assessing for client's desire for engagement

Technical Competence
- Ability of the provider to address and appropriately manage client's concerns

Communication Perceived Discrimination Trust Respect

Intention to Adhere to treatment

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