Running Head….Integrated Literature Review and Proposal for Provider-Patient Interaction

Background and Significance

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 (Martin, Kochanek, Strobino, Guyer, & MacDorman, 2005, Iyasu & Tomashek, 2002). Consistently, the rate of infant mortality for black women has been twice as high as compared to white women (Martin et.al., 2005). Low birth weight (LBW) (<2500g, 5.8 lbs) remains the leading cause of infant mortality in blacks (Matthews, Menacker, & MacDorman, 2003). In 2003, the LBW for black women was approximately double the rate for white women (13.5% vs 7%) (Martin et.al., 2005). However, the etiology of the persistent racial/ethnic disparities in birth outcomes is still clearly not understood. 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).

One method to improve the birth outcomes for black infants is through prenatal care. Documented evidence exists showing the relationship of prenatal care in decreasing the incidence of LBW and preterm births (Herbst, Mercer, Beazley, Meyer, & Carr, 2003, Alexander, Kotelchuck, 2001, Institute of Medicine [IOM], 1985, Gortmaker, 1979). Through the expansion of Medicaid coverage for low-income pregnant women, there has been a steady rise with prenatal care utilization for African American women (Martin et.al., 2005; Kogan et.al., 1998). Prenatal care provides women with the opportunity to be introduced and integrated into the health system thereby receiving preventive care, education regarding pregnancy and birth,

and special ancillary services such as mental health counseling, smoking cessation clinics, drug rehabilitation programs that benefit both the mother and the infant.

At the heart of prenatal care is the communication between the patient and the provider. Effective communication influences the quality of provider-patient interaction, patient behaviors, and health outcomes (Stewart, 1995). In fact, *Healthy People 2010* objectives recognize the impact of quality provider-patient 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). Similarly, one of the priority recommendations from IOM report (2001), *Crossing the Quality Chasm*, is improving provider communication by adopting a patient-centeredness model of care that emphasizes patients' involvement in clinical decision-making and considers their needs, values, and preferences.

However, for the African American women, negative past experiences with, mistrust in providers, experiences with discrimination, poor patient-provider communication have contributed to inadequate use of prenatal care; thus, potentially increasing the risk of poor maternal and infant outcomes (Dole et.al., 2004, Mikhail, 1999, Teagle & Brindis, 1998, Moore, 2004). Furthermore, one of the most controversial findings from the Institute of Medicine's publication of *Unequal Treatment* (2003) stated that provider bias, stereotyping, prejudice, and uncertainties in clinical decision-making may contribute to racial/ethnic healthcare disparities. Thus, the author hypothesizes that quality provider-patient interaction may indirectly influence infant outcomes by increasing maternal satisfaction of care leading to increased utilization of prenatal services. To explore how provider characteristics affect provider-patient interaction in

terms of maternal ratings' of care, an integrated literature review was conducted on African American women's interactions with their providers during prenatal care.

Method

To explore the research literature on African American women's interactions with their health care provider during prenatal care, an on-line computer search from 1995-2005 was conducted by the author from PubMed, MEDLINE, CINAHL, and PSYCHINFO using the following key terms "professional-patient relations," "provider-patient interaction," "physician patient relations," "prenatal," "African American," "discrimination," "perceived discrimination," "satisfaction," "healthcare utilization," and "communication." Retrieval was limited to articles in English, adults (19-44years), African American and females. In addition, the sample size needed to be composed of more than 45% of African American adult females of childbearing age (19-44years). Articles were excluded if they were letters, editorials, commentaries, pertained to chronic diseases, and no elements of provider-patient interaction were addressed.

Since only two relevant articles were located using the combination of professional-patient relations or provider- patient interaction, communication, satisfaction, African American, and prenatal, the search terms were divided into three categories using professional-patient relations or provider-patient interaction, African American, and the prior explained limits as the base terms for the literature search. A total of 118 articles were retrieved. From these, 20 articles were deemed appropriate. With the separate additions of communication, satisfaction, healthcare utilization, and perceived discrimination, no additional articles were obtained. However, when provider patient interaction was substituted for professional patient relations, the search term produced one additional article. Therefore, a total of 21 articles were included for the literature

review.

Summary of Findings

Provider interpersonal qualities that influenced outcomes of care were verbal and nonverbal communication behaviors, participatory decision-making, respect, personal manner, discrimination, race and gender concordance, and trust. Outcomes of care associated with provider-patient interaction were quality communication, satisfaction, utilization of healthcare services.

One theoretical framework, Andersen's Behavioral Model of Health Service Utilization was used in one study. Descriptive or correlational designs were used in 29% of the research studies. Qualitative research mainly using focus groups, individual, and ethnographic interviews composed 24% of the studies reviewed. One study used a videotape/participant observational design (<1%). Two studies used the same longitudinal descriptive correlational design (<10%) and the remaining studies (29%) used secondary data analysis sets from the Commonwealth Fund 2001 Health Quality Survey, 1994 Commonwealth Fund Minority Health Survey, and data sets from other larger randomized studies. Excluding national data and other randomized data sets, the greatest number of studies was conducted in New England or Eastern states (60%), followed by Midwestern states (33%), and one Western state (<1%). Majority of the studies assessed the patients' perspectives (74%) and 6 of the studies (26%) examined both patients and providers. Nearly, all but one study, which examined the cross-racial dyad between an advanced nurse practitioner and patient, was conducted on physicians.

Provider Interpersonal Qualities that Impact Outcomes of Care

Although substantial amount of studies have investigated the racial/ethnic disparities to the technical processes of care such as receiving tests, procedures, and treatments, few studies have examined the interpersonal processes of care between the provider and the client and its effect on health outcomes and its potential to explain or improve racial/ethnic health disparities (Stewart et.al., 1999, Roter & Cooper, 2002). Interpersonal processes of care contain social and psychological elements of the provider-client interaction (Cleary & McNeil, 1998, Stewart, et.al., 1999). The following reviewed studies examine provider qualities that impact outcomes of care such as satisfaction, healthcare utilization, and communication.

Verbal and Nonverbal Communication

Factors related to provider communication have consistently been linked to satisfaction. Two studies specifically examined provider-patient communication/interaction and satisfaction in African American women receiving prenatal care. In a descriptive correlational study by Handler, Rosenberg, Raube, & Lyons (2003) of African American women receiving prenatal care, the women were more satisfied when providers engaged them by asking and answering questions, explained procedures, and spent more time with them. Similarly, in another study, the authors conducted a telephone survey of African American (N=132), Latina (N=161), and White (N=70) women receiving prenatal care to determine if provision of health promotion advice and psychosocial assessment was related to improved interpersonal care and increased satisfaction with care. Higher quality of patient-provider communication such as eliciting and being responsive to patients' concerns and problems, listening carefully, empowering and encouraging women to be responsible for their self-care, and explaining the various processes of care were associated with greater satisfaction (Korenbrot, Wong, & Stewart, 2005). In contrast, if

physicians used avoidant responses and positive bias leading questions, less social and/or emotional problems were disclosed by African American mothers (Wissow et.al., 2002).

Although the Handler et.al. study examined multiple factors including personal, provider, and clinic site characteristics that influence satisfaction of care, the satisfaction measure scale only used three questions to measure satisfaction (ie Whether she would recommend her friend to where she receives prenatal care, recommend her primary care provider to a friend, and overall satisfaction rating). Recommending close others does measure one component of satisfaction, but it may not provide a complete picture of women's interaction with their providers. On the other hand, the interpersonal processes of care measures used by Korenbrot et.al. captured more of the interaction components of the provider-patient interaction. However, the authors did not ask about the content of the health promotion advice, or collected information regarding the characteristics of the providers such as race, gender, provider birthplace, etc. Information regarding the specific content of the health promotion advice combined with other provider characteristics could potentially influence the quality of interaction and satisfaction of the prenatal care visit.

One study examined nonverbal communication of providers and its affect on satisfaction. Arguete & Roberts (2002), investigated the effect of physician's race and nonverbal communication on participants' perceptions of satisfaction. 116 participants (N=96 African American, N=18 White) viewed one of four videotapes depicting a white or black physician and physician's nonverbal style of expressing concern or distance. Nonverbal concerned behaviors consisted of moderate to high eye contact with patient, concerned facial expressions, rarely referring to the patient's chart, and sitting approximately two feet from the patient. Nonverbal distant behaviors were defined as minimal eye contact, neutral facial expressions, frequent

referring to patient's chart, distant body posture, and sitting four feet away from the patient. Analysis revealed that physicians' who showed nonverbal style of expressing concern received higher satisfaction scores from the participants, were more likely to self-disclose, and intend to adhere to recommendations. Although Arguete & Roberts used a videotape analysis to assess nonverbal communication and attempted to control for the fictious provider-patient interaction, the scripted videotape encounters do not provide information on the actual outcomes of the provider-patient interaction and other personal patient variables (eg. continuity of care with the provider, previous healthcare experiences, etc.) that will influence the medical encounter. In addition, only male physicians were used for analysis.

For the studies assessing the quality of communication of the provider-patient interaction, it is evident that there are racial differences in provider communication measures. In comparing the association of patient race/ethnicity to the quality of physician-patient communication, Johnson and colleagues showed that physicians were more verbally dominant and less patient-centered with African Americans than with White patients (Johnson, Roter, Powe, & Cooper, 2004). In addition, African Americans and physicians in race disconcordant relationships had lower positive affect scores than White patients with White physicians (Johnson et.al., 2004). While in a different study, race concordance between patients and physicians did not affect patients' ratings of satisfaction, but notable differences in measures of communication were found. Same race visits were longer (2.2 mins) in duration, had slower speech speed in the conversation of both the physician and the patient, and patients again had higher positive affect scores (Cooper et.al., 2003).

Differences in communication can potentially be alleviated if physicians use patient-centered communication. In a longitudinal descriptive study by Wissow et.al. (2003), patient-

centered communication consisted of 3 components: interpersonal sensitivity, partnership, and medical information giving. When physician's provided communication that was patient-centered, both African American and White mothers were more likely to disclose psychosocial information. All 3 components of patient-centered communication were associated with psychosocial information disclosure. At initial visits, regardless of the physician's sex, White mothers were more likely to disclose psychosocial information than African American mothers. However, over a year period, there were no differences seen between African American and White mothers. In addition to increased psychosocial information disclosure of African American mothers over time, this increase was associated when paired with female physicians (Wissow et.al., 2003).

Participatory Decision-Making and Respect

Other provider behaviors associated with satisfaction include involving patients in decision-making and treating them with respect. To investigate if race and gender concordance were associated with physician's participatory decision-making styles (PDM), Cooper et.al. (1999), conducted a telephone survey of African American and White patients. African Americans in race concordant relationship with their physicians reported higher participatory visits. Both races rated higher participatory visits with female physicians, but gender concordance was not associated with physicians' PDM style. High PDM scores were associated with higher satisfaction ratings in all race groups (Cooper et.al., 1999). Another provider quality associated with satisfaction is respect. For African Americans, adequate listening, PDM, and respect were all associated with satisfaction, but treating patients with respect was the strongest predictor of overall satisfaction. (Saha, Arbelaez, & Cooper, 2003). Patients perceive they have been treated with respect when they understand what the provider is saying, leave with few

unanswered questions, perceive more participation in care, and perceive sufficient time was allotted for each visit (Johnson et.al., 2004).

Personal Manner

Elements of provider interpersonal style that influenced satisfaction of African American women receiving prenatal care were friendliness, courteousness, respectfulness, lack of discrimination, and emotional support (Korenbrot et.al., 2005). Having a friendly, non-judging, non-intimidating staff motivated homeless and substance abusing women to seek prenatal care (Milligan et.al., 2002). In a qualitative ethnographic study, Cricco-Lizzo (2005) explored the context of African American women's infant feeding decisions. When providers were attuned to the needs of the women, demonstrated caring, personalized messages to the individuals, and treated them with respect, African American women were more likely to change their infant feeding decisions from bottle to breast.

Trust

Mistrust and perceived racism experienced by African Americans in healthcare affects outcomes of care (LaVeist, Nickerson, & Bowie, 2000). Trust is an important component in provider-patient relationship. Components of trust were similar to provider interpersonal qualities that influenced outcomes of care. Provider factors that facilitated trust, common in all the reviewed studies, were technical competence, clear, complete, easy to understand communication (including attentive listening), and expressions of caring behaviors (Battaglia, Finley, &Liebschutz, 2003; Sheppard, Zambrana, & O'Malley, 2004). Low-income minority pregnant women also included continuity of care as expressed by number of, ability to see, and amount of time spent with the provider and institutional/structural factors (i.e. wait time, clinic hours, perceptions discrimination based on insurance, staff treatment, payment source) as being

associated with trust (Sheppard et.al., 2004). Other provider characteristics that contribute to developing patient's trust are building partnership/sharing decision-making, being honest, and having respect for the patient (Battaglia et.al., 2003). In a qualitative study of exploring the sustained relationship processes of cross-racial nurse practitioner-patient dyad, 3 themes, time, trust, and relationship emerged. Over time, trust and relationship was built, but both NP and the patients worked hard to overcome miscommunication, personal biases, and perceptions of "prejudice" (Benkert, Pohl, & Coleman-Burns, 2004).

Technical Competence

Provider competence was important in development of trust as stated previously and in utilization of healthcare services. African American women's stereotypic beliefs about physicians and its relationship to utilization of health care, intentions to see a provider, and satisfaction with care were investigated (Bogart, 2001). African American women who perceived physicians as competent (highly educated, trained well) were more likely to be satisfied with their care and recently had a health maintenance visit than those who perceived physicians as less competent. Those who perceived physicians as warm (friendly, honest, warm, snobby) were also likely to be more satisfied with care than participants who did not perceive their physicians to be warm. No significant relationship existed between the outcome measures and those who perceived their physicians to be racist. However, women who viewed their physicians as racist (doctors that do not understand patients health problems of African American people, prescribe worse treatment for African American than other ethnic groups, discriminate against people based on skin color, etc.) were more likely to label all physicians as racist and perceived them to be less competent and warm. This study was the only study that examined how African American women's stereotypes could influence health care utilization,

intentions to see a provider, and satisfaction with care, but these outcomes measures were not assessed comprehensively. Questions for health care utilization did not inquire about major barriers such as finances, transportation, and child-care that competes with utilization of health care and only one question was asked in regards to overall satisfaction of care.

Perceived Discrimination

Perceived discrimination is another important factor to consider in ethnically disconcordant medical encounters. African Americans have experienced a long history of discrimination, abuse, and ethical misconduct in medicine. Reports of perceived discrimination and/or experiences with past discrimination with providers affect health for African American patients (Lillie-Blanton Brodie, Rowland, Altman, & McIntosh, 2000).

Studies have shown that majority of the African American adults have reported perceived race and SES-based discrimination in their interaction with healthcare providers (Bird & Bogart, 2001; Bogart, 2001). Experiences with perceived race or SES-based discrimination with their providers were positively correlated with reports of hospital admissions (Bird & Bogart, 2001). Furthermore, racial/ethnic minorities were more likely to perceive that they would have been treated better if they were from another race and perceived that medical staff judged or treated them with disrespect based on their race/ethnicity and English language ability than white patients (Johnson et.al., 2004). However, the temporal sequence of discrimination and health care utilization or deeper explanations of experiences of perceived discrimination was not evaluated.

Race and Gender Concordance

Numerous studies have shown that ethnic minorities receive differential treatments and most often substandard care as compared to the white majority (IOM, 2003). Consciously or

unconsciously, provider-patient interaction may be influenced by race and gender concordance of the provider and the patient; hence affecting patient ratings' of care, satisfaction, and utilization of healthcare.

In several studies, race and/or gender concordant (white patients with white physicians or black patients with black physicians) relationships were associated with higher satisfaction of care (LaVeist & Carroll, 2002; Cooper-Patrick et.al.,1999; Saha et.al., 1999). African American respondents in race concordant relationships consistently reported higher ratings of satisfaction with their African American physicians than respondents in disconcordant relationships (LaVeist & Carroll, 2002). In another study investigated by Cooper et.al. (1999), both race and gender concordance were positively associated with satisfaction.

Race concordance not only affects satisfaction, but increase utilization of healthcare services. Using the 1994 Commonwealth Fund Minority Health Survey (CFMHS), Saha et.al. examined the association between race concordance with patients' ratings of physicians, satisfaction with healthcare, and use of healthcare services (1999). African American respondents reported that African American physicians treated them with respect, explained problems and procedures, listened to them, and were more accessible than white physicians. In addition to higher ratings of care and satisfaction, African Americans in race concordant relationships reported receiving more preventive and needed healthcare services (Saha et.al., 1999).

Similarly, LaVeist, Nuru-Jeter, & Jones (2003) conducted a secondary data analysis of the 1994 CFMHS using Andersen's Behavioral Model of Health Service Utilization to conceptualize the variables for the study. Andersen's Behavioral Model conceptualizes predisposing variables as the person's tendency to seek care, enabling factors as barriers or facilitators to care, and need

variables as the urgency of the patient of needing healthcare services. The authors selected race concordance as the predisposing factor in utilizing health services and hypothesized that patients would have a greater proclivity in seeking care once all the other variables were controlled. The results show that as compared to patients in disconcordant relationships, patients in race concordant relationships were more likely to use needed health services, less likely to delay seeking care, and utilize more healthcare services (LaVeist et.al., 2003).

Unlike the positive findings from previous studies on race concordance, satisfaction, and utilization of healthcare, race concordant relationships did not explain differences in satisfaction or utilization of health services (Saha et.al., 2003). Minority groups reported lower satisfaction of care than compared to the majority white population, but the difference was not due to race or gender concordance. In fact, African Americans received more health services compared to any other racial/ethnic groups and were least likely to report a preference for race concordant relationships (Saha et.al., 2003).

In the studies that reviewed race and gender concordance with satisfaction and utilization of health care services, the results were conflicting. Racial and cultural factors are important components within a provider and patient relationship. However, the inconsistencies of the results on race and gender concordance do not explain reasons for racial/ethnic disparities and patient health outcomes or patient ratings' on different dimensions of quality of care. It is presumable that provider-patient race concordance will lead to greater satisfaction and better quality of care due to mutual understanding of backgrounds, beliefs, and values, but other components of interaction such as provider communication, technical competence, and interpersonal style may provide explanations to disparities in healthcare. In addition, no standard measurement existed for satisfaction.

Methodological Limitations

From the studies reviewed, major limitations are related to methodological issues. Four of the studies used Roter Interaction Analysis System (RIAS) to code communication encountered in the clinical visits. The RIAS method is one way to measure communication, but communication is composed of both verbal and nonverbal communication. Audio and videotape analysis would have provided more accurate measure of communication styles that may enhance provider-patient communication. Although the coders were able to demonstrate interrater reliability with the RIAS, in two of the studies (Johnson et.al., 2004; Cooper et.al., 2003), they were both White women. The White women coders may have not detected subtle differences in ethinic/cultural responses and expressions. The two other studies did not indicate the gender or ethnicity of the coders (Wissow et.al., 2003; Wissow et.al., 2002).

Other measures of participants' interaction behaviors were collected through self-administered questionnaires, telephone interviews, or national surveys. Telephone interviews, surveys/questionnaires, and audiotapes are efficient methods, but the dynamic nature of the provider-patient interaction during a medical encounter cannot fully be captured through these methods alone. Audiotapes provide a valuable measure of communication, but exclude nonverbal components of communication. Surveys or questionnaires inquire about retrospective data and are limited in scope by the questions asked and by the mode of delivery. For instance, national surveys used telephone interviews, but this mode of data collection is limited by respondents with telephones and those who were present at the time of the call. Similarly, measures of satisfaction of care varied from one study to the next; thus, making it difficult to truly understand which variables influenced satisfaction of care.

Many of the studies incorporated limited number of factors that constitute the provider-

patient interaction. Unmeasured variables of patient and provider can affect findings from studies. Patient variables such as previous experiences with healthcare, prior relationship with the physician, reason for visit, choice in physician, attitudes about race and preferred communication styles, and provider variables such as physician specialty, preferred communication style, and bias all may potentially influence the medical visit interaction.

Recommendations for Future Research

Satisfaction has been the main outcome measure to study provider-patient interaction. Although satisfaction is one component of quality care, more studies are needed to understand how satisfaction leads to greater utilization of health services and strengthen the provider-patient relationship. Patients can be satisfied, but if they have low expectations or are not aware of other options, the satisfaction indicators may be misleading. Therefore, precise and comprehensive measurements of satisfaction, particularly in the realm of provider and patient interaction and the process of health care delivery, are needed. Researchers should also be consistent in how satisfaction is measured.

Except for one study, research on advanced practice nurses (APN) and patient interactions are nonexistent and almost all the studies investigated physicians. With the rising numbers of APNs who work in many different clinical settings, it would be worthy to examine how the interaction process of APNs differ from that of physicians and its subsequent health outcomes and quality of care. Furthermore, there were no interventions studies to improve provider-patient interaction. Research is needed to identify the connection between the patient-provider interactions to actual health outcomes, incorporate appropriate and multiple provider and patient factors such as prior and perceived discrimination, previous experiences with healthcare, role of

mistrust and expectations about healthcare, provider and patient biases and attitudes, communication style preferences, and their influence on provider-patient interaction. One approach to unify the available research and future research is to use a theoretical framework to guide the complex process of provider-patient interaction.

The nature of provider-patient interaction is a dynamic process that occurs between two individuals. To fully understand and capture the interactive process, future studies should use a combination of methodologies such as qualitative, quantitative, and mixed methods using audio and videotape analysis, questionnaires, focus group, and one on one interview to analyze this intricate phenomenon and its potential to influence health outcomes. Since the interaction is a reciprocal process, future research should incorporate perceptions, attitudes, and behaviors of both patient and the provider.

Finally, studies examining provider-patient interaction should be applied to other settings and populations besides primary care. Provider-patient interactions can be observed for ages across the lifespan including pediatrics in which parental interactions can be studied and in different care settings (ie, prenatal, emergency, hospital, nursing home, etc.). For instance, during pregnancy, women are guaranteed health care and have access to specialty services. Thus, prenatal care is an opportune setting for African American women to utilize healthcare services and to interact with variety of healthcare providers. In addition, the content of prenatal care involves risk assessment, health promotion, and medical and psychosocial interventions. The extent and how well these areas are addressed during the medical encounter by the provider can influence maternal and infant outcomes of care.

Conclusion

Studies on African American women's interaction with their providers during prenatal care and its effect on satisfaction of care, utilization of health services, and ultimately infant outcomes, were limited; thus the search was expanded to include studies on other provider-patient interaction settings with African American women. From the reviewed studies, interpersonal characteristics of the provider that influence outcomes of care are quality communication, involving patients in decisions, treating patients with respect and non-discriminating, being personable, developing a trusting relationship, and race and gender concordance. Provider-patient interaction is a dynamic and intricate process. Identifying successful components of interaction can have significant potential to affect multiple outcomes of care.

Proposed Area of Study

Provider-client interaction is a dynamic and reciprocal interaction process based on a relationship. Sociodemographic characteristics of both parties are already established, but each individual brings in their personal experiences, expectations, perceptions, and attitudes in a medical encounter. Based on the integrated literature review, the following study is being proposed as a way to address the gaps in provider-patient interaction research. The broad objective of this study is to observe and evaluate the elements of provider-client interaction and its influence on outcomes of care using a conceptual model.

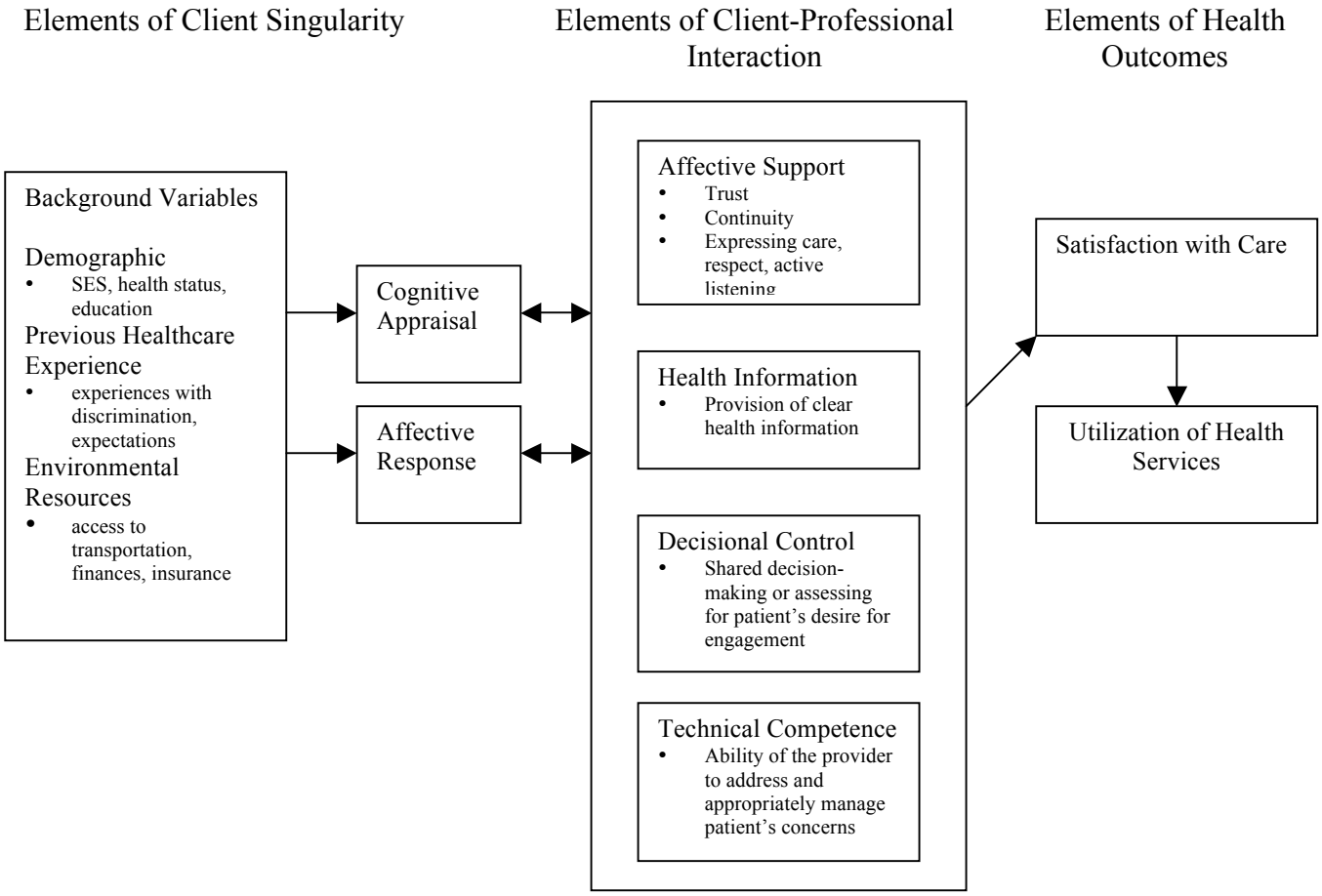
Specific Aims:

- To explore and identify the elements of provider-client interaction and how it affects satisfaction and subsequent utilization of healthcare services

Theoretical Base

The IMCHB is a client-centered model that identifies the dynamic relationships between elements of client singularity and provider-client interaction, and its subsequent health outcomes. *"The major assumption of the model is if the client-provider interaction factors specifically address client singularity factors, then a positive (desirable) health outcome results"* (Marion & Cox, 1996). The elements of client singularity consist of unique constellation of an individual's background variables (demographic characteristics, social influence, previous health care experience, and environmental resources), intrinsic motivation, cognitive appraisal, and affective response (Cox, 1982; 1984). These elements of client singularity need to be assessed by the provider during a healthcare encounter in order to deliver appropriate and relevant health interventions. The elements of client-provider interaction consist of affective support, provision of health information, decisional control, and professional/technical competencies (Cox, 1982; 1984). According to the IMCHB, these elements define the provider-client interaction. The degree to which each of these elements are manifested are dependent upon the assessment of client's singularity. The extent to which the provider tailors these elements to the client's singularity influences health outcomes (Cox, 1984).

For the proposed study, the elements of client singularity (background variables, cognitive appraisal, affective response) and elements of client-provider interaction (affective support, health information, decisional control, technical competency) will be examined to identify how these are manifested in the provider-client interaction to influence satisfaction of care and subsequent utilization of health care services.



Design

In the proposed mixed method study, 6 African American women (>18 years) receiving prenatal care and their respective providers will be observed through audio and videotape analysis. The audiotape analysis will be coded in relation to the components of the IMCHB. The videotape will be used to analyze the nonverbal behaviors of the provider and the client. The women will complete a post-visit questionnaire assessing how satisfied they were with care and the likelihood of returning to the following prenatal appointment based upon the elements of client-professional interaction.

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