RACIAL DISPARITIES IN SELF REPORTED HEALTH AND HEALTH CARE UTILIZATION. DOES PRIMARY CARE MATTER?

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DEDICATION

To the people who have unselfishly given to make my life better.

My dear husband: Suma, in you I found a lifetime friend, thanks for your unwavering support.

My parents: Deuta and Maa, only few would give to their child the way you have.

My Brother: Baba, though you are years younger, you have protected me like a big brother.

Most of all: Devarsh, my son! You are the reason I wake up every day.

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ABSTRACT

Ankita Deka

RACIAL DISPARITIES IN SELF REPORTED HEALTH AND HEALTH CARE UTILIZATION. DOES PRIMARY CARE MATTER?

A significant body of literature has accumulated in the last decade that provides evidence of the growing health care disparities among racial and ethnic groups in the United States. The literature suggests that Black adults share a disproportionate burden in death, disability, and disease. In 2002, the Institute of Medicine report, *Unequal Treatment*, showed that racial-ethnic disparities in health cannot be entirely attributed to problems of health care access, clinical performance, or patients' personal characteristics. Many studies have shown that institutional and individual level discrimination that Blacks face in the health care system impacts their health status. This study used secondary data analysis to examine how primary care experience impacts self-reported health status and health care utilization among Black adults. Data were from the *Medical Expenditure Panel Survey* (MEPS) implemented by the Agency for Healthcare Research and Quality (AHRQ). Specifically, MEPS Panel 10 (2005-2006) and Panel 11 (2006-2007) data were used in the analyses. The final sample comprised of N=15,295 respondents ages 18 and over. Logistic regression analyses were carried out using Stata Statistical Software, version 11. The study results reflect the disparities among Blacks and Whites on self-reported health and health care utilization. Blacks were 15% less likely to report good health status compared to Whites and had 0.11 less expected office-based doctor visits. Respondents who had better primary care experience had 0.05 times higher expected office-based doctor visits than respondents who did not have good primary care experience. Health care Social Workers should advocate for structural changes in health policy that will take into account the historical marginalization and contemporary inequities that continue to encompass the lives of many Black Americans.

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Chapter 1: Introduction

A significant body of literature has accumulated in the last decade that provides evidence of the growing health care disparities among racial and ethnic groups in the United States (Smedley, Stith & Nelson, 2002). The problem of differential access and utilization of health services is inherently linked to the process of distribution, allocation and control of resources by different groups in society. Despite the significant national attention that issues of health disparity have received from researchers, policy makers, health care professionals and health advocacy groups, there is very little consensus regarding its definition. Healthy People 2010, is a national agenda to eliminate health disparities, defines health disparities with respect to disease patterns and prevalence, treatment outcomes by race, sex, ethnicity, socioeconomic and educational status, place of residence, and sexual orientation (Mullins, Blatt, Gbarayor, Yang, & Baquet, 2005). The National Institutes of Health and the Health Resources and Service Administration conceptualize disparities as the incidence and occurrence of diseases, adverse health outcomes, and issues of access to quality care (Mullins et al., 2005).

A variety of conceptual models have been developed by researchers to explain the persistent causes of these disparities. Various factors such as socio-economic status, access to health services, historical marginalization of certain groups, socio-cultural beliefs and attitudes toward health and the nature of the health care system have been identified as contributors to persistent disparities (E. Long, 1993; Pearlman, Rakowski, Ehrich, & Clark, 1996). In 2002, the Institute of Medicine report *Unequal Treatment* showed that racial-ethnic disparities in health cannot be entirely attributed to problems of health care access, clinical performance or patient's personal characteristics (Johnson, Saha, Arbelaez, Beach, & Cooper, 2004). The report suggested that health care disparities are rooted in the complex mix of historical marginalization and contemporary problems of racial prejudice and systematic bias (Johnson et al., 2004). Weinick, Zuvekas and Cohen (2000) noted that the socio-economic determinants only accounted for half of the observed disparities. Lillie-Blanton, Martinez, and Sarganicoff (2001) also concluded that since race and ethnicity had independent effects on where patients sought care, it is important to study whether patient-provider relationships and quality of care given may account for some of the observed disparity. Since the interpersonal relationships between the patients and health care professionals play such an important role, it is important to estimate whether or not these processes have any bearing on health outcomes for racial ethnic groups. In spite of this understanding, very few health disparity studies have focused on the impact of interpersonal aspects of care and how they may result in adverse health outcomes. In the following sections, different trends in the literature on health disparities related to interpersonal relationship between patients and providers are presented.

Patient-Physician Trust

The literature shows that the quality of health care one receives varies by the patient's race and ethnicity (Saha, Arbelaez, & Cooper, 2003). Blacks and Hispanics consistently receive low quality care and express low levels of satisfaction with the care they receive (Saha et al., 2003). Research has shown that racial ethnic minorities, particularly Blacks and Hispanics, rate their interaction with physicians and health care professionals poorly (Saha et al., 2003). Discordant patient-physician relationships also resulted in lower levels of satisfaction with the global health care system (Saha, Komaromy, Koepsell, & Bindman, 1999). Studies suggest that there is a lot of bias and stereotyping among health care professionals which impacts the way patients seek health care and ultimately impacts health outcomes (Schulman et al., 1999). Patient's level of comfort and trust in their physicians have been seen to influence their willingness to seek treatment and care (Hunt, Gaba, & Lavizzo-Mourey, 2005). Different perceptions about experiences and attitudes of the health care professionals can also account for disparities in health care utilization. Several research studies have clearly established that patients have varying perceptions of racism, fears and inhibitions to trust their health care providers (Gaskin et al., 2007). In general, racial ethnic minorities have lower levels of trust and satisfaction in the health care system including physicians, hospitals, and health plans. In order to address health disparities from a policy perspective, it is important to understand the differences in perceptions about health care professionals among racial ethnic minority groups. These perceptions about the health care system directly impact health outcomes of minority groups (Morales, Elliott, Weech-Maldonado, Spritzer, & Hays, 2001). The way patients assess their health care system also impacts their health-seeking behavior or health care utilization patterns (Zastowny, Roghmann, & Cafferata, 1989).

Most studies on patients' satisfaction with health care are based on patient's perceptions of a sub-group of the health care system like physicians, medical professionals, or health plans. While most minorities report very low levels of satisfaction with the system, the experiences of dissatisfaction may be based on perceived racism (Auslander, Thompson, Dreitzer, & Santiago, 1997).

Nationally representative studies have demonstrated that racial ethnic minority patients simultaneously report low levels of satisfaction and higher levels of experiences of racism within the health care system (Foundation, 1999). The relationship between primary care attributes such as access, continuity, comprehensiveness, integration of services, clinical interaction, interpersonal treatment and trust are intrinsically related to patients health outcomes (Safran et al., 1998). Having trust in the physician and higher assessments of the quality of care can be linked to treatment adherence and willingness to incorporate change in personal choices that may impact health (Safran et al., 1998). Safran et al. (1998) found that racial ethnic disparities in health can be explained by disparities in perceptions about the health care received by minority patients. Negative experiences in the health care system are not just a result of patient-provider relationships; research indicates that interactions with other health professionals such as front desk people and technicians in the laboratory can also be potent sources of these experiences (O'Malley, Le, Glaser, Shema, & West, 2003).

Primary care and health disparities

Health disparities have a very intricate relationship with primary care and subsequently primary care experience. In the United States, primary care is the gateway to accessible and affordable health care, particularly after the development of the managed care system (Cardarelli & Chiapa, 2007). It is interesting to note that with the change in health care delivery mechanisms and health care financing, the role of the primary care site has become very important. More and more Americans are now enrolled in managed care plans that necessitate having a primary care site (Clancy & Stryer, 2001). In 1996, the Institute of Medicine defined primary care as an establishment that could provide integrated and accessible health care services by health care providers who would be accountable for meeting health care needs of the community (Donaldson & Vanselow, 1996). Primary care centers would also be responsible for developing a sustainable partnership with their patients and they would strive to keep their practices situated in the context of the community (Donaldson & Vanselow, 1996). For most health care consumers in the United States, primary care continues to be the first point of contact with the health care system. There is a direct relationship between the number of primary care physicians in a community and the overall health status of community residents (Cardarelli & Chiapa, 2007). Good health is also characterized by better health outcomes and lower rates of mortality (Cardarelli & Chiapa, 2007).

A number of primary care attributes like first contact access, patient-centered care, comprehensiveness, and coordinated care have been associated with good health outcomes (Cardarelli & Chiapa, 2007). Other studies have shown that the benefit of having primary care as a usual source of care includes receiving timely preventive health care services, particularly for people from lower socio-economic groups with chronic health problems (Clancy & Stryer, 2001). However, the primary care site has become a possible ground where most of the health disparities and inequities are accentuated. The question remains, however, whether the impetus to have a primary care site has actually reinforced more racial-ethnic disparities in health care delivery (Cardarelli & Chiapa, 2007). Research shows that minorities are much less likely to report that their doctor’s office is their primary care center (Gaskin et al., 2007). They are more likely to visit hospital emergency rooms, hospital outpatient clinics, or report not having any primary care at all (Gaskin et al., 2007). Very few studies have explored the reasons why racial ethnic minorities do not report having a primary care site. Even after controlling for insurance coverage, family income and geographic region African-Americans and Hispanics report less usage of primary care (Lillie-Blanton et al., 2001). The clinical interface between patients and health care professionals has been associated with producing many health inequalities. Racial ethnic minority patients have expressed lower levels of satisfaction in several domains of care and have also reported very low levels of trust, comfort levels, and accessibility to primary care settings (Cooper et al., 2003)

Differences in quality of health care create health disparities, and some of the ways in which these inequities are manifested are: racial bias, greater levels of clinical uncertainty with minority patients, and stereotyping the beliefs and behavior of minority patients (Cardarelli & Chiapa, 2007). Racial bias can influence clinical decisions made by doctors including referrals and treatment procedures. Clinical bias can have an adverse impact on health outcomes of minority patients. Cardarelli and Chiappa (2007) define clinical uncertainty as arising out of systematic bias against minorities. They explain that in the absence of adequate information about the patient’s condition it is not unlikely for the physician to make clinical decisions about the patient’s health status based on their prior beliefs and attitudes. Cardarelli and Chappa (2007) explain how racial stereotyping often occurs without any overt understanding. Stereotypes may operate to reduce complex medical conditions into non-important ones. More often than not, providers are unaware about how their stereotypes impact their clinical decisions. However, the danger of racial stereotypes which are often presented as unintentional is that they have an adverse effect on the patient-provider relationship (Cardarelli & Chiapa, 2007). Moreover, it is these small often refuted acts of bias and stereotypes that create and maintain health disparities (Cardarelli & Chiapa, 2007).

Studies have shown how subtle acts of bias impact clinical outcomes and health of minority patients. Schulman et al. (1999) found that in a case of hypothetical patients, primary care physicians were very less likely to refer older African-American women for further testing of cardiac diseases. It is not surprising to see, therefore, that racial-ethnic minorities consistently report less positive experiences with their physicians and low levels of trust in their physicians (Doescher, Saver, Franks, & Fiscella, 2000).

Issues related to the clinical interface

In recent years there has been growing interest in understanding how health care interactions result in disparities in quality of health care delivered and its ultimate impact on health outcomes of minority patients. Few studies have examined whether racial concordance between provider and patient can lead to greater satisfaction with care and greater compliance in treatment (Blanchard & Lurie, 2004). Studies of African-American patients having racially concordant providers have shown more preventive care services and screenings for the patients (Saha et al., 1999). These studies indicate that there are factors beyond insurance status and access to care that determine quality of care for minority patients. Long term exposure to racism and perceived discrimination also impact health care outcomes for minorities. Bird and Bogart (2001) showed that two thirds of the respondents in their study felt they were discriminated against in the health care system either because of their race or socioeconomic status (Bird & Bogart, 2001).

Gaps in literature and the proposed study

While many research studies have explored the relationship between race/ethnicity and health outcomes or race/ethnicity and satisfaction with health care, yet there is a gap in our understanding of how these experiences impact the health status of minorities. Research has shown the relationship between health care utilization and health outcomes. Therefore, it is important to know if primary care experience impacts health care utilization by racial ethnic minority groups. The main aim of this research study was to determine if primary care experience predicts health care utilization and therefore self-reported health status of African-American adults in the United States. This proposed research study also explored the racial differences in perceptions about care, health status and health care utilization patterns. While disparities in primary care/primary care experience have been studied earlier, no other research study has examined whether primary care experience can predict the self-reported health status and health care utilization patterns among African-Americans.

It is only in the recent past that researchers have explored the interconnections between racial status and health. The relationships between racism and racial discrimination with health status have started appearing in medical and psychosocial literature. Racial discrimination has been defined as “beliefs, attitudes, institutional arrangements and acts that tend to denigrate individuals or groups because of phenotype characteristics or ethnic group affiliation (Clark, Anderson, Clark, & Williams, 1999). Several studies have shown that African-Americans receive differential treatment within the health care system owing to their racial status. However, few studies have explored the impact of this differential treatment on the health outcomes and utilization patterns of African-Americans. There is a gap in our understanding of how African-American adults’ perception of their health care interactions impacts their health outcomes or their health care utilization patterns. This research study intends to address this gap in the literature on health disparities. Since primary care has been identified as a vital point of entry into the health care system and because managed care plans mandates having a primary care site for patient’s first contact, this research examined health disparities vis-à-vis primary care contact.

Why study African-Americans?

Health disparities impact different ethnic and minority groups; for the purpose of this research project, the focus will be on African-American adults in the United States. There are a variety of reasons for targeting this specific population. The literature suggests that African-American adults share a disproportionate burden in death, disability and disease in the United States. For example in 2001, on average African-Americans had five years lesser life expectancy than European-Americans (Health, 2004). It is interesting to note that in recent years the overall health status of American citizens have improved remarkably, however the frequency and incidence of diseases, rates of HIV infection, mortality rates continue to be much higher among African-Americans (Waidmann & Rajan, 2000). Compared to the other racial and ethnic groups African-American women have the highest mortality rates in all categories or causes of death (National Center for Health Statistics & Prevention, 1999). Historical marginalization because of racial status along with other socio-economic determinants creates many health-related handicaps for African-Americans and there is a greater propensity for them to report poor health. Therefore, this research study focused on disparities in African-American health.

Gaps in Social Work literature

Social work literature on health disparities is very sparse. A few studies have looked at racial disparities in screening practices and HIV infection disparities. However, there is still a big gap in social work's contribution to the health care disparity dialogue. In this section a glimpse of Social Work's contribution to the health disparity literature will be presented. Only a few selected studies will be presented to illustrate the trends in Social Work literature on health disparities. Since the studies do not lend themselves to the topic of this proposed research study, all the studies will not be presented.

Schoen and colleagues (2003) conducted a comparative study of two countries, United States and Israel to look at issues of health status, health care access and health care experiences among women. Since the health care systems in the two countries are very different from each other, it allowed the authors to compare the different dimensions of disparities relating to women's health.

Baezconde-Garbanati et al. (1999) used secondary data to examine racial disparities in health status between Latinos and non-Latino Whites in California. The study revealed that although much younger in age the Latino population had significant health risks compared to non-Latino Whites particularly amongst women. The study advocated better preventive health care services as well as culturally competent services for Latino women.

Gaston et al. (1997) looked at the health care needs of women of color and analyzed the special role of the bureau of primary health care in reducing the existing racial disparities in women’s health. While conducting literature search for this proposed study, no research studies relating to disparities in primary care could be found in the Social Work literature.

This study intends to: contribute to social work literature on health disparities; secondly to address the gap in health disparities research in medical and epidemiological fields on understanding the impact of interpersonal processes like primary care experience on self reported health and health care utilization by Black adults. The imperative to address disparities in health stems from Social Work’s commitment to social justice issues. As a profession social work is deeply concerned with deep seated inequities in society and how systems and institutions perpetuate those inequities. This research will allow social work researchers and practitioners to understand the nature and extent of disparities.

Chapter 2: Literature Review

Eliminating health disparities has received top research priority from funding agencies and this requires new insights and research frameworks that will help to explain the social determinants of health and how such social contexts translate into physiological morbidity for racial ethnic groups (Carlson & Chamberlain, 2004). Research indicates that the racial identity of African Americans influences their lived social reality and the juxtaposition of both creates inequities (Birt, 2002). For a long time health disparity research had focused on developing cultural competency in the health care system to address the culture specific needs of minority groups. However, until recently there was no research on how institutional racism influenced health outcomes of minorities (Smedley, Stith, & Nelson, 2002). It was not known how African-Americans perceived the quality of health care they received and whether this had any bearing on their health outcomes and health care seeking behavior.

Carlson and Chamberlain (2004) outline the reasons why few research studies explored health from the African-American perspectives. They state that the over-emphasis on the bio-medical model in epidemiological research reduced the impact of race as a mere biological genetic attribute. Research on health disparities was based on the biological differences between African-Americans and White-American (Krieger, Rowley, Herman, Avery, & Phillips, 1993), and it was almost used as a rationale for the failed social policies that accentuated racial differences(Williams, Yu, Jackson, & Anderson, 1997). Thus, the impact of race was reduced to understanding how African-Americans had greater propensity to engage in poor lifestyle choices or as a proxy measure of low socio-economic status (Carlson & Chamberlain, 2004). Thus, the interconnection between social experiences of racism and health were largely left unexplored in health disparities research.

The next phase of epidemiological health research emphasized on understanding the SES impact on health outcomes of African-Americans. Because of the strong associations between race and socio-economic status, many social and behavioral scientists held that poor health outcomes among African-Americans was primarily because of their low SES status (Williams et al., 1997) . Health disparity studies have shown that adjustment for SES significantly reduces the racial disparities in health (Lillie-Blanton, Parsons, Gayle, & Dievler, 1996). A large number of African-Americans who are of low SES work without any health benefits and without having a primary care center to visit during any illness episodes (Smedley et al., 1993). Health care insurance status remains the most studied variable to explain health disparities. In fact, income and education explain the ability to obtain health insurance and they also explain the disparities in access and utilization of health care (Kirby, Taliaferro, & Zuvekas, 2006). However, the significance of different socioeconomic factors is dependent on the outcome being studied and also on the specific racial ethnic group characteristics (Kirby et al., 2006).

In recent years several research critiques have emerged that challenge prior studies which have exclusively emphasized the relationship between SES, race and health (Hummer, 1996). These critiques have emphasized the need for alternative research frameworks because they contend that SES cannot entirely explain racial disparities in health. Lillie-Blanton et al. (1996) found that even after adjusting for SES, racial disparities in health persisted. Differences in health care access between Hispanics and Whites could be explained by insurance, employment, demographic, socio-economic status and health system capacity by only about 35% to 70 % (Zuvekas & Taliaferro, 2003). Much of the other differences between the two groups remained unexplained.

Waidman and Rajan (2000) found that magnitude of disparities as well as causal factors explaining the disparities varied depending on the state, racial ethnic group status and on the health outcome measure under study. They found that income, citizenship status, and marital status explained part of the disparities; however, they concluded that much of the disparities would still remain even if those factors were adjusted for. An interesting study by Krieger et al. (1993) found that racial differences in health were actually accentuated with increase in SES status. The relationship between race and health is not simply mediated by SES status but it is part of the trajectory in which racial status impacts health outcomes (Cooper & David, 1986). William, Yu, Jackson, and Anderson (1997) explain that race can be seen as an antecedent and determinant of SES, and differences in SES between Blacks and Whites reflect the pattern of economic disadvantages produced by societal institutions and structures. They also state that the development of the SES measure is routine and often times the conceptualization of the measure has many limitations. Finally, since racial disparities continue to persist even after adjusting for SES new research frameworks are needed to explain how individual experiences related to racial status can impact health outcomes (Williams et al., 1997).

With shifting research paradigms we have started seeing more research and literature on the African-American experience within the health care system. However, very few empirical studies have been conducted which show the relationship between race, ethnicity and experience in the health care system (Doescher et al., 2000). Studies have documented how discordant patient-physician relationships because of cross-cultural issues accentuate health disparities. Studies have also shown that minority patients’ particularly African-Americans prefer to visit same race providers and they also tend to rate the services of those providers to be of higher quality (Saha et al., 2003). Blanchard and Lurie (2004) found that minority respondents with lower education and those who had difficulty speaking the English language were more likely to report that they were not treated with respect by their health care providers. Their study also showed that respondents who reported discrimination and disrespect were less likely to report having a routine physical exam. The minority respondents who reported not being treated well by their providers also report disregarding doctor’s advice and putting off the needed treatment procedures. Blanchard and Lurie (2004) conclude that such trends are dangerous for population health because negative experiences in the health care system may lead patients to receive suboptimal care. In the context of chronic diseases this may lead to adverse health outcomes and may contribute further to increasing racial disparities in health outcomes among minorities. African-American patients report that their visits with their physicians were not participatory

(Cooper-Patrick et al., 1999). In various aspects of care African-Americans report lower levels of satisfaction. In a nationally representative study, Doescher et al. (2000) they found that racial ethnic minority groups reported poor perception of physicians than Whites on two conceptual scales. They attribute these differences to both physician and patient attributes such as: physician's failure to understand symptoms and illness; subtle racial bias and the manifestation in clinical interactions, and finally the differences in expectations between patients and physicians.

Johnson et al. (2004) conducted a study that was the first of its kind to measure racial ethnic variations in patient's perception of bias and cultural competence in health care. They found that racial ethnic minorities were more likely to perceive bias and the lack of cultural competence amongst health care professionals. African-Americans, Hispanics and Asians reported that they perceive their health care quality would have been better if they belonged to a different race. They also reported judgmental treatment by health care staff, disrespect and that they were judged based on their ability to speak English. The racial differences that emerged in the study could not be fully explained by demographic characteristics, health status, usual source of care, health literacy amongst patients or the communication patterns between physicians and providers. African-Americans in the study reported that they faced bias based on the way they spoke English, which highlights the fact that there were major cultural biases at work within the health care system. The language concordance between the physicians and African-American patients did not seem to help in this case. The results corroborate the disturbing trends in the health care system where racial ethnic minorities perceive bias and differential treatment while seeking care. These differences seemed to persist even when the researchers controlled for socio-economic variables. Johnson et al. (2004) suggest that having a usual source of care provider or primary care physician may not completely explain the perceptions of bias amongst patients. However, they conclude that interventions designed to improve access to primary care physicians may help address some of the disparities seen in perceptions of bias and cultural competence amongst health care staff.

Racial bias and discrimination in health care operates in such a way such that it expands already existing health differences between racial ethnic and minority groups. Research studies seeking to establish the relationship between racism and health have focused on two different streams of thought. The first strand of literature seeks to establish the interconnections between individually perceived discrimination and health. The second stream of literature seeks to develop connections between institutional racism and health (Gee, 2002). Both streams of literature have provided empirical support for the theories asserting that racial discrimination in the health care system operates at multiple levels and are maintained at those levels (Gee, 2002). Understanding the relative importance of both factors individual and institutional is important to contextualize the health risks for minority patients. However, very few studies have looked at the simultaneous influence of both factors on health outcomes of minorities (Gee, 2002). This present study examined how individually perceived racism such as perceptions about the behavior of health care professionals' impact individual health. Because of the limitations of the data, this research study did not explore the interconnections between institutional racism and minority health.

Subtle acts of racial discrimination in the health care system have been known to shown to increase stress levels among African-Americans. Racism induced stress has been known to have a psycho-pathological impact on African-Americans which further contributes to existing health disparities (Wilkinson, 2000). Studies have shown that racism induced stress stems primarily from the coping mechanisms and responses that African-Americans have to deal with (Clark et al., 1999). Guyll, Matthews and Bromberger (2001) found that subtle acts of racial discrimination actually increased the diastolic blood pressure of African-American women (Guyll, Matthews, & Bromberger, 2001).

Health disparities among racial ethnic groups are perpetuated both intentionally and unintentionally by the health care system. Health care providers sometimes reinforce mainstream racist ideas about patient's values, competence and even deservingness (Roter, 2000). Providers can also create an atmosphere such that patients from marginalized sectors feel that there are limited expectations for improvement of their health outcomes (van Ryn & Fu, 2003). Marginalization can stem from race, ethnicity, socio-economic status or a combination of all these attributes (van Ryn & Fu, 2003). The danger in this situation is that by creating low expectations for patients, providers can influence the health-seeking behavior of patients. Patients may lose interest in seeking the resources and help they need to preserve good health (van Ryn & Fu, 2003). Such trends in the health care system have contributed greatly to existing health care disparities. Studies have also shown how communication patterns among health care providers impact health outcomes of patients (van Ryn & Fu, 2003). It is not unusual to observe that there are disparities in the communication patterns about preventive health and health promotion behavior among health care providers (van Ryn & Fu, 2003). Health care providers have significant influence on the way patients' access and receive treatments. It is in this area that most of the disparities in health are actually based.

To put the argument in perspective, research studies have extensively documented the differential access to and use of services by African-Americans. African-Americans in general report longer waiting time in emergency room evaluations as compared to Whites for chest pain related problems (Manhapra et al., 2001). Manhapra et al. (2001) also found that African-Americans are more likely to be wrongly diagnosed and discharged from emergency room without hospitalizations. A study with patients receiving kidney transplants and dialysis treatments, found that across all categories African-Americans were more likely than Whites to report racial discrimination (Klassen, Hall, Suksbig, Curbow, & Klassen (2002). The authors concluded that patients who perceive greater discrimination in the past will be less likely to explore new treatment options like transplantation as they have limited expectations of the outcomes. Their findings support existing research on the physical and psychological health effects of racism in the health care system. The study also lends support to the theory of social embeddings of health. Chin et al. (1998) found that among diabetic Medicare patients, African-American women who did not have high school education and were elderly were more likely to report not having their lipids monitored , not receiving follow up appointments and were less likely to be offered vaccinations and eye care. They also found that African-Americans were less satisfied with the health care system and preferred to visit emergency departments rather than a usual source of care.

Physicians have a great role to play in the racial disparities found in the incidence and mortality rates of breast cancer among African- American women. Vernon et al. (1992) found that African-American women and Hispanic women were less likely to receive physician referral for mammography. Chang et al. (1996) found that the time gap between screening and diagnosis was far greater among racial ethnic minority women. In a study of minority women who had abnormal mammograms, 90.5 % cited that it was physician related delays that impeded them from getting timely care (Chang et al., 1996). Studies have indicated that late stage breast cancer detection in Black women can be attributed to problems of bias and racism in the health care system.

Culture and ethnicity are intertwined and play a great role in influencing patients perception of the health care they receive and subsequent measures that would be taken up by patients for health preservation. Also, culture helps determine the way symptoms are recognized and diagnosed and also how services are offered and sought (Mullins et al., 2005). The prejudices and sensitivity to cultural issues all play a role in the quality of health care provided by health care professionals. Cultural issues also play a role in the way patients seek care. Literature has shown that many Black women do not perceive the health care quality they receive to be of good quality; they believe that they are constantly judged on their appearance, ethnicity and socioeconomic status (Griffin, 1994). Even in the presence of critical medical problems African-American women do not adhere to treatment protocols because they feel that their providers do not care for their needs (Griffin, 1994). A study by Griffin (1994) with Black women found that all participants in the study expected to be treated better by health care professionals, and they felt a sense of helplessness while seeking care. They also expressed very little hope that the health care would change to accommodate the needs of the African-American population.

To throw some light on the prior discussion on the pervasiveness of institutional discrimination in the health care system we can look at several recent research studies. Schneider et al. (2002) showed that physicians who worked on managed care plans that have greater number of African-American enrollees provided very low quality of primary care services. Bach and colleagues (2004) found that visits of Black patients were largely concentrated among a sub group of primary care physicians who were not board certified and who experienced barriers in accessing high quality of services for their patients. The authors' conclude that disparities in health outcomes stems from lack of clinical training of the physicians and their inability to provide adequate services to African-American patients. The study shows that African-American patients are generally treated by physicians who may differ in many ways from physicians who treat White patients, and this may explain some of the variance in health outcomes among racial ethnic groups (Bach et al., 2004).

In general, racial discrimination in health care has been associated with poor health status. Williams and colleagues (2003) conducted a meta analysis on racial ethnic discrimination and health. Their analysis shows that there is a strong association between discrimination and higher prevalence of diseases. However, they also identify some of the gaps in the literature in this area. First, it is not known to what degree racial discrimination increases the risk for disease, and it is not known what processes can alter the relationship between discrimination and health outcomes. Secondly, we do not know if persistent exposure to racism actually increases the threat for diseases or does it create patterns of habituation whereby the adverse effects of perceived discrimination are minimized. Finally it is a challenge to develop adequate measures to quantify discrimination. Williams et al. (2003) found that there is no general agreement in the literature on how to optimally capture perceived discrimination. They conclude that literature on discrimination and health is still a new and understudied research area. The mechanisms by which perceived discrimination can impact health has not been fully explored in the literature.

This present research study is aimed at contributing to the literature on health care disparities by trying to understand how primary care experiences impact health outcomes and health care utilization of African-Americans. In order to put the case of primary care experience into perspective we will look at the literature on primary care and its relevance to the health disparity dialogue.

Research has documented the direct association between high quality primary care and health of populations. Starfield and colleagues (2005) state that three streams of research provide evidence to the fact that primary care improves health of people. First, health is better in areas where more primary care physicians have practices; secondly, people who seek health care from primary care physicians report better health, and finally, the general characteristics of primary care can be linked to good health outcomes (Starfield et al., 2005). In general, primary care physicians consist of general practitioners, general internists, and general pediatricians (Starfield et al., 2005). Primary care related health outcomes and health disparities have been extensively studied by Lyi Shi, a Harvard based public health researcher. In earlier studies, Shi et al. (2002) found that those states in the United States with higher primary care physician to individual ratio reported better health outcomes of the population. However, a larger number of primary care physicians in an area do not necessarily imply that all individuals will have better access to health services or better quality of care (Starfield et al., 2005). It is important to know if the experiences of people with a primary care physician can be linked with health outcomes. Many research studies have established the positive association between primary care experience and health outcomes of patients; however, what is not known is whether primary care actually helps address some of the health disparities (Shi et al., 2004).

In a nationally representative study of primary care experience and racial disparities found that having access to good primary care may actually reduce racial and ethnic disparities in health status (Shi et al., 2004). The study also found that people who reported good experience in access and good interpersonal relationship with primary care providers also reported good physical and mental health status. In a previous study by Shi et al. (2002), the authors found that individuals in their study who had a primary care physician and those who experienced good quality primary care reported good mental and physical health status. Both income inequality and primary care experience had independent effects on health status of individuals. This study is significant because it adds to the literature on how certain aspects of health care services including delivery of good primary care can influence health outcomes of populations. The study also found that primary care experience was able to mitigate the adverse effects of socio-economic inequality on self-rated health. Individuals who experienced good quality primary care could address their health issues in timely manner than individuals who experienced poor quality care (Shi et al., 2002). However, they also conclude that since individuals living under conditions of low SES experience greater health problems, good primary care experience can only act as a moderator and it cannot completely eliminate the adverse impact of socio-economic inequality on health.

The distinct features of primary care, as identified by the Institute of Medicine are: accessibility, comprehensiveness, coordination, continuity and accountability. Each attribute plays an important role in the way patients seek care in the primary care center and they also have implications on the individuals' health outcomes. In a primary care setting the interpersonal relationship between the health care providers and the patients are based on factors such as: patients' perception of how well their provider understood them; finding common ground; incorporating preventive health behaviors; and patient centered practice (Stewart et al., 2000). Stewart et al. (2000) in a study also found that there is a certain pathway by which provider interactions influence the patient's health. Besides the boost to the patient-physician relationship, it is important to focus on patient centered care because patients' perceptions have a critical role in the healing process given that personal experiences can actually influence the biological outcomes (Stewart et al., 2000).

Safran et al. (1998) found that patient-physician relationships where there were greater levels of trust and where physicians had greater knowledge of patients resulted in three significant outcomes of care. The patients reported greater adherence to treatment protocols, expressed greater levels of satisfaction and finally they reported better health status (Safran et al., 1998). The authors conclude that these results are significant particularly in an era driven by managed care plans patients' change from one provider to another. The results also confirm the Institute of Medicine report that the special attributes of primary care make it distinct from other medical care practices.

Flocke et al. (2002) found that in primary care practices where patients reported better interpersonal relationships and communication with providers, patients were more likely to receive preventive services. The patients in this study who reported good experience within the primary care setting received adequate clinical screenings. In sum, good primary care experience can result in many positive health outcomes.

The challenge, however, in the delivery of optimal primary care is that racial ethnic groups continue to receive poor quality care. Though the general understanding is that having a usual source of primary care facilitates better delivery of health services, in reality the receipt of services varies by ones' race and ethnicity (Schulman et al., 1999). Shi (1999) found that racial ethnic minority groups experience very low levels of satisfaction with their primary care services even after controlling for socio-demographic factors. This study was the first of its kind to show how interpersonal experiences exacerbate health problems among minority groups. The study was important in confirming our understanding that mere socio-economic determinants cannot predict health outcomes for minority groups.

This present research study tried to further Shi and his colleagues' work (Shi, 1999; Shi, Green, & Kazakova, 2004; Shi et al., 2004; Shi et al., 2002) on the impact of primary care experience on the health outcomes of racial ethnic minorities, specifically on African-Americans. While the racial disparities in primary care experience and self-rated health has been studied before (Shi, 1999), there is a gap in our understanding of whether or not primary care experience can impact self-rated health and health care utilization. This study will specifically contribute in two ways to the literature: first contribute to upcoming social work research on health disparities by explaining the relationship between primary care experience and self reported health: secondly it will fill the gap in the literature on the relationship between primary care experience and health care utilization of African-Americans.

It is important to study self-reported health (SRH) because SRH has been found to be a strong indicator of mortality, morbidity, mental health and the presence of chronic diseases in an individual (Kandula, Lauderdale, & Baker, 2007). Most population-based surveys employ the SRH question to measure the health status of multiethnic respondents. The SRH question is often measured as a single item question "How would you rate your overall health". It is used both as a predictor and outcome variable in health research fields (Kandula et al., 2007). This global health question which is based on the unique perception of individuals about their health status is also phrased as "perceived health status". The dataset for this research study lists the global health question variable as "perceived health status". Research indicates that the "perceived health status" question has been effective in predicting future health outcomes of respondents (Kandula et al., 2007). For the purpose of this research, "perceived health status" was conceptualized as the subjective assessment of overall health by respondents during the time of the survey. In order to develop the connection between primary care experience, self-rated health and health disparity we used Shi et al. (2004) study on racial disparities in primary care and self rated health. The authors conceptualize this relationship as "The logic of the connection between disparity, primary care, and self-rated health is that disparity by affecting socio-economic and psychosocial factors may also exacerbate some risk factors for health. Because primary care experience is positively related to health, it might ameliorate some of the negative impact of disparity" (Shi, Green, &

Kazakova, 2004; Shi et al., 2004). There is a process by which racial disparities impact the health of individuals. Institutional level disparities like income and access to health care services have a lot of bearing on individual health. Besides as discussed earlier under the literature review disparities also impact psychosocial status of individuals and can thus accentuate health related problems.

Chapter 3: Theoretical Basis of Health Disparities

Many researchers and theorists have forwarded various theories and models to explain the persistence of health disparities. In the following section, a range of theories (See Table 1) that have dominated the literature on health disparity research will be discussed briefly. This proposed research study is guided by the researcher’s understanding of postcolonial theory in health care. The tenets and development of postcolonial theory will be discussed at length in this section as well.

Table 1: Theoretical Explanations of Health Disparities

Conventional Theories 1. Race as Biology 2. Race as proxy for Class 3. Race and class as separate
Emerging Theories 1. Social Structure and Personality 2. Cultural Behavioral 3. Socio-cultural barriers
Theories of Racism in Health Care 1. Subtle Racism 2. Aversion Racism
Ecological Theories 1. Bronfenbrenner’s framework
Social Justice Models 1. Equity 2. Redistributive Justice 3. Transformative Social Justice
Post-Colonial Theory

Race as biology, proxy for class and race and class as separate constructs

The three most popular interpretations of racial disparities in health are: race as an outcome of biology, race as a proxy for class, and race and class as separate constructs (Kawachi, Daniels, & Robinson, 2005). In recent years the racial genetic model of explaining health disparities has come under much fire. Even after controlling for genetic predispositions toward illness, health disparities continue to persist. The second theoretical explanation of using race as a proxy for class is based on two assumptions: African-Americans are overrepresented among the poor and adjusting for socioeconomic status eliminates health disparities (Kawachi et al., 2005). The danger of using such a proxy model is that it underestimates the impact of race on class, because in the United States race continues to determine class rather than vice versa (Kawachi et al., 2005). The third popular theoretical stance emphasizes on the simultaneous influence of both race and class on individual health. This theoretical position hypothesizes that both racial and class identities are mutually constructed; hence, it is difficult to study one without acknowledging the effect of the other (Kawachi et al., 2005). Kawachi et al., (2005) indicate that the separation of race and class in the health disparity dialogue serves the purpose of keeping people with same class interests apart. They also state that while the impact of race gains a lot of ground in public policy making, class is kept invisible and undefined. The simultaneous impact of race and class on the health of African-Americans and other minority groups is notable; however this stance is not free from criticisms either. Race and class issues in the health disparity dialogue still fail to account for the other hidden factors that create and contribute to disparities. For example, they fail to account for institutional and interpersonal aspects of care, which have been widely referred to in this research paper.

Emerging theoretical trends

New research on health disparities has offered various explanatory frameworks to state how the mechanism of disparities grows, consolidates, and sustains itself. Health disparities have been explained as an outcome of macro social factors like institutional racism and the socio-political economy of the nation (Schnittker & McLeod, 2005). Even meso level factors like neighborhoods, individual behavior and perceptions about care have been identified as contributors to health disparities (Schnittker & McLeod, 2005). The social structure and personality framework developed under the influence of sociological social psychology explains the interconnections between macro social factors and individual behavior and their impact on health outcomes (Schnittker & McLeod, 2005). This framework traces a trajectory through which larger social systems influence individual behavior, which inturn influences larger social systems(Schnittker & McLeod, 2005). The social psychological theories help to provide an understanding of how the interaction between the macro level social factors and individual level factors create and sustain health disparities.

A variety of other theories that explore interconnections between material well-being and health have also been used to explain the existing health disparities. For example, studies have looked at the relationship between neighborhood environments, access to care and health outcomes in populations (Schnittker & McLeod, 2005). The cultural behavioral model of health has also been offered as a plausible explanation for existing health disparities. The fundamental belief of this model is that health beliefs are transferred in an intergenerational way that has consequences for the way people define illness and health (Lynam, 2005) Studies have explored how individuals have different values, health beliefs, health behaviors and health preferences all of which may impact health outcomes of individuals (D. R. Williams & Rucker, 2000).

Betancourt and colleagues (2003) have forwarded a theoretical framework that helps explain the way health disparities are perpetuated in the health care system. They conceptualize that there are three levels at which sociocultural barriers in health care are constructed and each of them contribute to health disparities. The three factors that they identify are organizational barriers, structural barriers and clinical barriers. The organizational barriers comprise of the compositional make up of the health care system where racial ethnic minorities are underrepresented among health care professionals (Betancourt et al., 2003). Organizational barriers in the health care system refer to the complex organization of health care delivery which proves to be an obstacle for minority patients seeking care. For example, in the absence of interpreter services non-English speaking patients may encounter many of challenges in navigating the health care system. Other organizational barriers include bureaucratic intake process and long waiting time both of which indirectly affects health care utilization among minority patients (Betancourt et al., 2003). Finally, clinical barriers have been referred to as those sociocultural differences between providers and patients which are not fully understood or explored. For example, patients may have many attitudinal differences regarding trust with the health care system and about health promotion and treatment protocols, which the health care providers may overlook ((Betancourt et al., 2003).

Theories of racism in healthcare

Theoretical explanations about racism in health have also provided a framework through which health disparities can be explored and understood. Health disparities in the United States reflect institutional and structural racism that create multiple disadvantages for the minority population. A new form of racism identified as subtle racism is explicitly seen in the health care system (Carlson & Chamberlain, 2004). This new form of racism, also called “aversion racism” operates in a way where the perpetrator is unaware of the underpinnings of his racist beliefs and thus continues to impact those toward whom it is directed (Carlson & Chamberlain, 2004). Dovidio and colleagues (2002) in their work on subtle racism conclude that in general the explicit forms of racism are decreasing in society while such implicit forms are on the rise.

Health care theories focus on how intentional or unintentional behavior on the part of health care professionals can create health disadvantages for minority groups. Ashton et al. (2003) explain the mechanisms through which racial bias in health care creates disparities. Their model explains that race ethnicity, and other socio-economic and structural determinants like time pressure of provider, health care plan etc impact the communication style between patients and providers. Based on the interactions/congruence/negotiation during the patient-physician encounter, patients can generate both affective and behavioral response to the treatment as well as the relationship. Both kinds of responses like treatment adherence or trust and faith in the physician can have an impact on the health outcomes of the patient (Ashton et al., 2003).

Ashton’s model is helpful in understanding how patterns of interaction between patients and providers can impact the physical and mental health of patients. The model is particularly significant for health disparity researchers who want to investigate the relationship between interpersonal aspects of care and health of minority patients.

Ecological and Epidemiological models

A number of models based on ecological theories have also been developed to explain health disparities. Bronfenbrenner’s (1979) theoretical framework consisting of microsystem, mesosystem, exosystem and macrosystem have been used to explain how patterns of health disparities are situated within each of these contexts (Reifsnider, Gallagher, & Forgione, 2005). Epidemiological studies also provide conceptual frameworks to explain how patterns of diseases are distributed amongst population groups. They also try to explain the determinants of population health (Reifsnider et al., 2005). Epidemiological models try to explain health disparities vis-à-vis the intersection of the three domains of agent/host/environment (Reifsnider et al., 2005). Since diseases do not occur as a result of just one factor, epidemiological models help to explain how interactions between the three different parameters create health advantages or disadvantages for people. For example, the causes of over-representation of a particular disease in a specific racial ethnic community could be attributed to various factors such as genetic disposition, socio-economic status and lack of access to good health care, cultural beliefs, lifestyles, generational discrimination and manifestations on health, ill conceived social policies etc.

Theories of equity in health care

Theorists have attempted to explain health disparities from the perspective of equity in health care. In order to develop an understanding of health care equity, there is a need to distinguish it from health care equality. These two concepts are often used interchangeably in the literature. Chang (2002) offers a conceptual framework in which the meanings and goals of health care equity are elaborated. Chang (2002) describes equity as a normative concept which is distinctly different from equality which is empirically based. He conceptualizes inequity as arising out of the failure of either horizontal (equal treatment among the equal) or vertical equity (Unequal treatment among unequal). Proponents of the equity model in health care can follow two pathways. First, they may denounce all forms of inequity as inegaliatarian or they may have a more accommodating perspective where only those inequities arising out of deliberate conduct and structural processes are condemned (Chang, 2002). Equity in health also refers to promoting optimal levels of health for all by providing adequate opportunities to individuals (Chang, 2002) In this context a discussion of Rawls' concept of redistributive justice is relevant which emphasizes the maximin theory, whereby those who have the least advantage are given the maximum opportunity. Rawls' theory of justice is based on the idea of fairness in distribution of resources. In order to develop the notion of fairness he uses the concept of "original position" in which individuals in a society define the organizing principles of a just society. In this just society no one is aware of their social or economic position, their intelligence or their strengths. Rawls has referred to this situation as a "veil of ignorance." Rawls attempt was to decipher what kind of social system would be instituted by rational and free thinking people if they were put in the original position. The question as to whether vulnerable groups in society should be given extra opportunities to maximize their health conditions has often been debated. Egalitarian theorists do not reconcile to Rawls' theory of redistributive justice as it is purported to enhance opportunities for one group at the expense of another.

The heart of the discussion on equity in health care is based on distributive justice at different domains of the health care system (Chang, 2002). Distributive justice in the health care system is concerned with : the distribution of optimal health as well as opportunities to maintain optimal health; a just and equitable health care system guaranteeing access to all, financing, responsiveness and in health care quality; finally in aspects of both micro management and macro management within the health care system Chang, 2002). Since the determinants of health are multifactorial, the responsibility and authority to maintain optimal health among populations has to be dispersed evenly among individuals and organizations (Chang, 2002).

Chang (2002) emphasizes the importance of distributive justice in health care; however, his idea of justice in health care departs greatly from Rawls notion of distributive justice. Chang (2002) decries the importance of allowing individuals from vulnerable groups to have more opportunities than privileged groups within the context of health care. He stresses that regardless of whether health differences are minimized or not all individuals should enjoy equal access.

Rawl's theory of distributive justice used in health care has been critiqued by economists like Kenneth Arrow. Arrow (1983), who explains that there is a problem in allowing inequalities to work toward the advantage of those who are less privileged because that implies diverting resources from society to meet the special health care needs of certain populations. (Arrow)asserts that this might be at the expense of reducing the rest of the society to extreme poverty. He also contends that by allowing health care to be included in the list of primary goods, we create a fallacy in Rawl's logic of avoiding interpersonal comparisons and utility of goods by ranking them against each other.

The fundamental issue of Rawl's theory of justice is that in his discussion of primary goods, he fails to mention the most important good "access to health care" which is key in achieving desirable social and economic goals (Green, 1976.). The Rawlsian theory of equalization of primary goods, opportunities and capabilities has been critiqued by various scholars. Rawl's theory continues to provide impetus to constructive social policies. His rationale of providing opportunities for good health to the less fortunate through redistribution of resources has been one of the strong rationales for advocating state interventions in the health market (Rice, 2001).

In sum the concept of justice in the health care system has been touched upon by various scholars to elucidate the point of delivering fair and equitable health care services irrespective of class, race, gender and disabilities. Many scholars have also pointed out the shortcomings of relying solely on the theory of distributive justice as it may fail to address the deep rooted inequities in society that create different levels of opportunities for individuals in the first place.

Theories of social justice and redistributive justice in health care

As an alternative to the theory of redistributive justice, scholars like (Young, 1990) have emphasized the need to understand oppression and discrimination of social groups and how that impedes social justice. Young (1990) argues that individuals are discriminated or oppressed mostly as members of social groups and not as individual entities; hence, we need frameworks that will help expose the nature of such oppression and discrimination. Young (1990) makes the point that by focusing on oppression and discrimination we can address issues in social justice pertaining to culture and difference. Her contention against distributive justice is that it fails to acknowledge institutional oppression and how that impacts individuals who are primarily members of social groups. However, critics of Young (1990) like Fraser (2003) point out that her model of social justice is essentialist in nature and thus creates a false distinction between identity issues and redistributive justice. In fact, (Fraser, 2003) argues that in order to bring about emancipation of the oppressed we need to integrate the two supposedly discrete paradigms, because both the cultural aspects of identity politics and economic aspects of redistributive justice are important. Kirkham and Browne (2006) take this further to discuss the imperatives of understanding health care disparities vis-à-vis social justice. They contend that all discussions of social justice have maintained a dignified silence over health care issues primarily because the discussion of health and illness is relegated to the private sphere where health is constructed as an individual’s state of being. They claim that where health is acknowledged as a social justice issue then the focus is put on access to health care. The core issue that they expose is whether health is a natural good or a basic human right? They further stress that if health is a social justice issue then the focus should change from merely addressing health care access to focusing on health outcomes of populations. Kirkham and Browne (2006) also bring out the challenges in conceptualizing health as an individual responsibility under the influence of liberal individualism. If health is construed as an individual responsibility, then it is difficult to rectify the institutional and structural practices that create health disadvantages for minority. The power relations in society that confer privileges to a few and disadvantages to others have to be understood in a transformative social justice model so that health inequities can be addressed.

The rationale for describing the range of theories above is to allow the reader to understand the numerous theoretical perspectives that have guided health disparity research. It will also help to put the proposed research study into perspective. However, this dissertation work is strongly guided by postcolonial theory as it relates to health care. Because of the limitations of the data it is not possible to put the tenets of postcolonial theory to direct test within the scope of the study; however it is important to expose the researcher's philosophical and theoretical grounds on which the study was designed.

Postcolonial theory in health care

In health disparities studies considerable amount of attention has been put on the importance of developing culturally competent health care delivery systems. Research has shown that understanding the cultural context in which interactions between patients and providers take place can ameliorate many of the existing disparities in health. However, understanding culture as it operates within the health care system is complex and there are both theoretical and methodological challenges to address. In new research paradigms culture is understood as a flexible construct that is rooted in history and is discursively situated (Mohammed, 2006b). This approach of understanding the context of historical constructions, patterns, values and beliefs about the health of individuals can be described as postcolonial studies on health (Mohammed, 2006a).

Postcolonial theory provides an alternative framework which is different from a general patient centered approach to understanding the cultural distinctiveness of patients. Mohammed (2006a) points to the dilemma of solely using the interplay of culture and health to explore health disparities. Cultural constructions are very often essentialist in nature and sometimes are used almost as a blueprint to justify human behavior. In that sense Mohammed (2006) argues that culture becomes an already existing concept attached to certain people and therefore can be presented in a neutral way. Most cultural descriptions are incomplete descriptions and partial truths and they fail to acknowledge the location from which such representations are made

(Mohammed, 2006a). Culture is used as a monolithic understanding of a group of people and it is often based on strict generalizations. Such generalizations can actually perpetuate dangerous stereotypes, which can be treated as both exotic and pathological by those in the dominant discourse (Mohammed, 2006a). The problematic aspect of such cultural generalizations is that they fail to account for individual variations and they also discard the history behind such cultural constructions. Social and political structures define the way individuals gain access to resources in society including the capability to maintain good health (Stevens, 1989). The problem of purely focusing on culture is best explained by Mohammed (2006) as "culture becomes shorthand, a euphemism that eradicates history and the continuing mechanism of colonial injustice" (Mohammed, 2006, p-100)

Postcolonialism offers strategies to understand the context of health disparities. The postcolonial approach goes beyond interpreting disparities as an outcome of cultural differences. Post colonialism is a sophisticated theoretical standpoint that represents the tenets of multiple other theoretical orientations like postmodernism, poststructuralism, feminism and Marxism (Mohammed, 2006a). At the heart of postcolonial theory is a commitment to challenge hegemonic power structures and ideologies which are historically created and sustained. Postcolonial theory emphasizes the need to understand the impact of history on current events including the study of health disparities and to understand how multiple systems of oppression based on race, class and gender operate in society. Using postcolonial theory to understand health disparities we can understand how inequities in society are institutionalized and how cultural ascriptions given to minority groups are used as a justification to explain existing health disparities. Kirkham and Browne (2006) refer to this as "cultural valuing" by which individuals are deemed either inferior or are excluded and sometimes rendered invisible. This pattern is manifested in daily interactions within the health care system.

Postcolonial theory helps in understanding and validating the marginalized voices to inform general discussions and debates concerning social justice and health disparities. The epistemological problem often represented in our attempts to understand social problems including health disparities is that the knowledge production is mainstreamed and very often excludes the voices of those for whom the discourse is directed. Postcolonialism helps to challenge the normative, a priori processes of knowledge creation in society (Kirkham & Browne, 2006). Postcolonial theoretical frameworks try to create an inclusive and informed paradigm of knowledge creation where those who have been historically silent in health care contexts are also given a chance to disrupt the hegemonic western constructs surrounding their lives in general and health in particular (Kirkham & Browne, 2006). Postcolonial theory in health care helps to illuminate the social constructions of difference and helps to explain "sustained intergenerational patterns of ill health and human suffering not as examples of poor individual choices or flawed lifestyles but as the results of diminished life opportunities that have systematically and repeatedly been denied through a complex of institutionalized policies and widespread societal discourse of othering" (Kirkham & Browne, 2006). As mentioned earlier in this section, The present research study was theoretically guided by the tenets of postcolonialism, however given the nature of the data it is not possible to test the theory within the scope of this research. However, by unearthing the effects of institutional and interpersonal factors on African-American health, this study can elaborate how cultural and social factors work in tandem to create health disparities. The study also alludes to the interconnection between issues of power and control and effect on individual health. The relationship between the provider and patient which was analyzed in this study though patient self-reports and it will highlight those connections.

Postcolonial theory offers a new lens to understand social justice as an outcome of the combination of redistribution, recognition and participation (Kirkham & Browne, 2006). Health disparities result because of an imbalance in the mix of these three dimensions as a result of the politics of exclusion. This critical social justice framework does not rely solely on distributive or economic inequities but it broadens its scope to understand cultural and social exclusionary practices that impacts the health of individuals. Postcolonialism tries to address health inequities by: confronting power relations; integrating subaltern voices; developing knowledge that is transformational, and by mitigating differences arising out of social discrepancies (Racine, 2003). In order to make the health care system more equitable it is important to direct action toward bringing the traditionally marginalized to the forefront (Anderson, 2000). Cultural theories which focus on culturally competent services and understanding the health beliefs of minorities have failed to address the stereotyping and homogenizing practices surrounding the difference (Racine, 2003). In that sense, post colonialism through a broader theoretical framework will explore the interconnections between oppression, patriarchy, tradition and modernity as they relate to health disparities (Racine, 2003). In order to establish the connection between postcolonialism and health care disparities, we can use Racine (2003) definition "Postcolonialism challenges western science as the unique source of knowledge production and uncovers healthcare inequities related to race, gender and class resulting from the process of colonization and post-colonization"

Postcolonialism has been widely used in nursing science research to develop a critical epistemological base to address health problems related to the intersection of race, gender and class with social, political, historical and economic factors (Anderson, 2000; Dirlick, 1999). In order to emphasize the importance of postcolonial frameworks in health disparities research, we can look at Racine (2003) research with Haitian caregivers in Canada. Previous studies with Haitian caregivers in Canada found that caring for old parents at home was a result of cultural factors among Haitians (Racine, 2003). However, a subsequent study by (Racine, 2003) found that Haitian caregivers experienced serious degrees of racial discrimination within the health care system and felt socially rejected which led them to underutilize health care services including institutional services for the aged. The earlier studies based on essentialist notions of culture failed to develop the social, political and economic context of caregiving among the Haitian caregivers.

Postcolonial theory in health care has also been critiqued by various scholars for its emphasis on racial and ethnic relations in any social discourse. The theoretical framework has been called ironic because though it professes to challenge ethnocentrism and racism by focusing on racial and ethnic relations it actually covers up the causes real social inequities (Dirlick, 1999). It has also been critiqued as producing a monolithic creation of colonial experience, and it has also been referred to as a safe haven for identity politics (Kirkham & Anderson, 2002). However, these critiques of postcolonialism can be defended because postcolonial frameworks which are based on intersections of race, class and gender with colonizing experiences still account for the most viable explanations of power relations in society (Kirkham & Anderson, 2002). (Bhaba, 1990) also emphasizes the importance of seeing culture as a creation of historical processes and besides as he argues culture is always partial, negotiable and context specific. Therefore, basing health disparities purely on culture is problematic as culture is relative, negotiable and fluid.

The reasons for using a postcolonial theory in health disparities research are manifold. Postcolonial theory helps us address the pervasive racial, social and gender based discriminatory practices in the health care system. Also, by moving away from essentialist cultural constructions we can contextualize how institutional, structural and macrosocial factors work together to create health disparities. Research on African-American's health in the United States cannot be a-political or neutral, given the country's long tryst with institutionalized racism. There is a strong element of distrust in the health care system by African-Americans, and it is important to confront the historicity of that distrust. Postcolonial discourses in the health care system can help providers avoid the expert's role in knowing about patient's cultural constructions of health and illness (Kirkham & Anderson, 2002). Rather, it will emphasize the need to understand how patient's perceptions of health stem from social discrepancies and neocolonial ideologies (Kirkham & Anderson, 2002). It will also help health care professionals reexamine power and privilege within the health care system and achieve social justice. Using a postcolonial lens to unearth health disparities will help move beyond the individualism and health care access issues that dominates health disparities discourse (Kirkham & Browne, 2006). It will throw light on patterns of distribution, recognition and participation which impact health outcomes of individuals. Finally, by using a critical perspective to social justice issues we can understand how certain social groups bear extra burden of illness, death and disability because of social conditions that perpetuate these discrepancies. Postcolonial theoretical frameworks in health disparities provides a sophisticated mechanism to understand the linkages between individual and social, between local and global and how each of these processes intersect to create health disadvantages for vulnerable population groups.

Chapter 4: Methods

Study Design

This research study was a secondary data analysis of a nationally representative dataset. The data for this study comes from the Medical Expenditure Panel Survey (MEPS) 2007, which is the most recent year for which MEPS data are available for public use. MEPS data is based on an overlapping panel design that will be discussed in the following section.

The rationale for using nationally representative secondary data is that it enables us to validate the results for the US population as whole. Large population-based studies are ideal for studying racial differences in health care rather than small scale surveys that have relatively smaller sample sizes. Since one of the objectives of this research study was to address gaps in Social Work literature on health care disparities, estimates from this study will help Social Workers understand the magnitude and nature of the problem. The MEPS dataset provides a great opportunity to study racial disparities in health care since it over samples racial minorities like blacks, Hispanics and Asians (Shi, 1999).

This research study was both explanatory and descriptive in design. A primary focus of descriptive research is that it helps gather facts on the phenomenon under investigation (Engel & Schutt, 2005). Measures have been used in the research study to estimate what extent of the population has health insurance coverage, usual source of care, health care use, education and other measures of socio-economic status, and how these measures differ between Blacks and Whites.

One of the main features of explanatory research is that it seeks to identify causes and effects of social phenomenon, and it also explains the interrelationships between phenomena; for example, variation in one item (or indicator or variable) may cause change in a related phenomenon (Engel & Schutt, 2005). One of the primary goals of this study was to explain the relationship between primary care experience and health care utilization and health status in general and to explore whether this relationship differs between Blacks and Whites.

Data Description

MEPS is a nationally representative dataset that provides estimates of health care usage, expenditures, payment sources and health insurance coverage for the US civilian non-institutionalized population. The MEPS Survey is implemented by the Agency for Health Care Research and Quality (AHRQ) and the National Center for Health Statistics (NCHS). MEPS surveys have been conducted annually since 1996. Prior to MEPS, the National Medical Expenditure Survey 1 and 2 was used to study similar trends in health care use and expenditures.

The MEPS database is a family of three surveys. The main component is the Household Survey and it also forms the basis of the second component, which is the Medical Provider Component (MPC). These two surveys together produce comprehensive data on national estimates of health care use and distribution and health care expenditures and contribute significantly to the field of health services research. They have also been used to assess and develop health policies. The third survey, the Insurance Component, is a survey of private and public sector employers that provides national and state level estimates of employer-sponsored health insurance coverage and costs (MEPS, 2007).

Data for this research study come from the MEPS- Household Component (HC). The MEPS-HC is a nationally representative survey of the US civilian non-institutionalized population. This survey collects data at the person and household levels using a computer-assisted personal interviewing (CAPI) technology. The HC reports data on demographic characteristics, health status and health conditions, medical care usage, income levels, employment status, and health insurance status. The HC is developed as an overlapping panel design in which data based on two year periods are collected through preliminary contact followed by a series of five rounds of interviews over a two and half year period. Medical expenditures and health care usage data are collected from every household in the sample. The series-based data collection is started each year on a new sample panel of households and the annual data are developed using data from the first year of the new panel along with data from the second year of the previous panel (MEPS, 2007). Each year, a new panel of about 15,000 households is selected and is followed for two calendar years through a series of 5 interviews. The first two interviews are done in the first year, and the next two in the second year of the survey. The third interview can be either in the first or the second year of the survey. This study includes data from MEPS Panel 10 and Panel 11. Panel 10 includes data from 2005 through 2006 and Panel 11 includes data from 2006 until 2007.

Every year the sample for the MEPS-HC is pulled from respondents of the previous year's National Health Interview Survey (NHIS). The NHIS provides a nationally representative sample of the US civilian non-institutionalized population with an over-sampling of Hispanics and Blacks. The oversampling of Hispanics and Blacks is carried over additionally to the MEPS panel. The MEPS sample design also over-samples Asians and low-income families.

Primary research purpose and research questions

The main purpose of this study was to determine if primary care experience predicts self-reported health status and health care utilization and whether the impact of primary care experience on health status and health care utilization differs between Blacks and Whites. Shi (1999) studied racial ethnic disparities in primary care and found that racial ethnic minorities experienced worse first contact primary care even controlling for racial disparities in socio-demographic characteristics. The present study takes Shi's (1999) work on health disparities in primary care further by investigating whether or not primary care experience itself has an impact on the health care utilization patterns and self-reported health status of African-Americans. Shi's (1999) study showed that racial ethnic disparities in health status do not merely reflect the differences in socio-demographic characteristics but rather shows a more complex relationship between the interpersonal relationships among people within the health care system. This study attempts to empirically measure whether or not interpersonal aspects of care such as primary care experience can impact health status and health care utilization. More specifically, I have analyzed the racial difference in the impact of primary care experience on health status and health care utilization among Blacks and Whites.

The secondary purpose of this research study was to analyze descriptively the racial differences in health care access and health care use, source of care, and racial differences in perceptions about care.

The table below shows the research questions and hypotheses used in the study.

Table 2: Research Questions and Hypotheses

Research Questions	Hypotheses
1. Can primary care experience predict self-reported health?	H1: Primary care experience predicts health status
2. Is there racial difference in the impact of primary care experience on health care status between Blacks and Whites?	H2: There is no difference in the impact of primary care experience on health status between Blacks and Whites
3. Can primary care experience predict health care utilization?	H3: Primary care experience predicts health care utilization
4. Are there racial differences in the impact of primary care experience on health care utilization between Blacks and Whites?	H4: There is no difference in the impact of primary care experience on health care utilization between Blacks and Whites

Measures

For this research study, measures were identified within the MEPS database that denote race, primary care, primary care experience, and socioeconomic covariates as they impact access to care and self-reported health. Table 3 provides a list of the variables that were analyzed.

Table 3: List of Variables

Independent Variables	**Dependent Variables**
Age	Self-reported health
Income	Office-based doctor visits
Race	Outpatient doctor visits
Sex	Emergency room visits
Years of education	Whether had usual Source of care
Family size	
Marital status	
Employment status	
Insurance	
Geographic region	
Smoking status	
Self-reported health status	
Metropolitan statistical area	
Usual source of care (USC)	
Poverty status	
Primary care experience	
Diabetes/Asthma	
High Blood Pressure	
High Cholesterol	
Coronary Heart disease	
Angina	
Myocardial infarction	
Stroke	
Emphysema	
Arthritis	
Other heart disease	

Race/Ethnicity

Since a primary focus of the study was on the disparities between Blacks and Whites, the analysis classified and used a dichotomous variable indicating the two population groups. The overall sample characteristics are reported using descriptive statistics. For the purpose of the analyses a series of inclusion and exclusion criteria were used for the sample. The overall sample includes only individuals aged 18 and older who are non-institutionalized and who identify themselves as Black or White. Other racial identity categories have been excluded from the study.

Primary care

In the public health literature, primary care has been described and operationalized in many ways although there is no consensus on its definition (Shi, 1999). The attributes of primary care experience have been classified by Shi (1999) based on Starfield's (1994) conceptualization of the cardinal features of primary care. Starfield (1994) conceptualizes the main features of primary care as first contact, longitudinality, comprehensiveness, and coordination. As described earlier, Starfield's (1994) conceptualization of primary care is consistent with the guidelines and attributes first identified by the Institute of Medicine including accessibility, comprehensiveness, continuity, coordination and accountability (IOM, 1978). The attributes identified by Starfield are considered unique to primary care. Most primary care features which are available in the literature can be grouped under those four domains (Shi, 1999). This study uses Shi's (1999) classification based on Starfield to operationalize the four cardinal features of primary care. Shi's (1999) study used the 1996-1997 MEPS dataset in which some of the attributes of primary care identified were different from the classification used in the 2004 MEPS survey.

The four features of primary care operationalized using Shi (1999) are as follows. Under **first contact** there are two questions; the first one relates to whether the person goes to USC for new health problems and the second one refers to whether the person goes to USC for ongoing health problems. Under the second feature of **longitudinality** there are four questions that relate to the interpersonal relationship between the provider and the person seeking care. In this case the four attributes are measured by whether the provider ask about other treatments, whether provider shows respect for treatment, whether the provider asks the person to help decide and whether the provider explains options to the patient.

Shi (1999) mentions that one of the critical measures of longitudinality is the proportion of visits made to the same physician over a period of time; however, it is difficult to estimate that in this case as MEPS data do not report that information. The third feature of **comprehensiveness** encompasses the attribute of seeking preventive care. Finally, under **coordination**, the use of referral services is used as an indicator to determine the interface between primary care services and specialty physicians.

Table 4: Four Features of Primary Care and their Indicators

First Contact	**Longitudinality**	**Comprehensiveness**	**Coordination**
1. Go to USC for new health problems 2. Go to USC for ongoing health problems	1. Provider ask about other treatments 2. Provider shows respect for treatments 3. Provider asks person to help decide 4. Provider explains options to person	1. Go to USC for preventive Health care	1. Go to USC for referrals

Primary Care Experience

For the purpose of this study, primary care experience has been conceptualized as the interpersonal aspect of care that results from the interface between the provider and the person seeking care. Primary care experience has been operationalized by eight attributes:

1. Go to USC for new health problems
2. Go to USC for preventive Health care
3. Go to USC for ongoing health problems
4. Go to USC for referrals
5. Provider asks about other treatments
6. Provider shows respect for treatments
7. Provider asks person to help decide
8. Provider explains options to person

The eight attributes have been measured as being part of a scale and have been used as a single variable in this study (primary care experience). The descriptive statistics of these components of the constructed variable is provided in Table 6. A Cronbach’s alpha test for reliability or internal consistency was carried out to assess the reliability of the scale, which in our case was the primary care experience. Cronbach's alpha measures index of reliability in a scale associated with the variation related to the construct that is measured (Santos, 1999). The construct is often understood to be the hypothetical variable that is being measured (Hatcher, 1994). Cronbach's alpha values ranges from 0 to 1 and could be used both to describe the reliability of factors extracted from binary variables or from multi-point generated questions (Santos, 1999). A higher score usually of 0.7 or more is considered to be an acceptable reliability coefficient (Nunnaly, 1978). At times it is seen that lower thresholds are used too. The Cronbach's alpha score for the test of reliability on these eight items, yielded a value of 0.78, and since it is above the acceptable threshold, the scale was used to measure the construct 'primary care experience. The estimation of the Cronbach's alpha is shown in Table 7. As seen from Table 7, the item/question "whether USC provider shows respect" has the highest correlation 0.8 with the overall score while the item "whether USC explains treatment options" has the lowest correlation of 0.73 with the overall score.

The summary statistic for the constructed primary care experience variable is provided in Table 8. The average primary care experience score is 0.76 while the median experience score is 1.5.

Sociodemographic Variables

Several socio-demographic variables such as age, sex, marital status, income, education level, insurance status, and employment status were used to describe the overall sample and as predictor variables in the multivariate analyses.

These socio-demographic variables were used as control variables in the two main regression equations.

Perceived Health Status

The perceived health status item is often referred to as the individual assessment of global health or self-reported health (SRH), and it is based on the unique perception of the respondent about his or her health status. Most population-based surveys employ the SRH question to measure the health status of multiethnic respondents. The SRH variable, which is often measured as a single item question “How would you rate your overall health”, has been studied extensively in health research fields, both as a predictor and as an outcome variable (Kandula et al., 2007). It is considered a valid and accurate indicator of health (Kandula et al., 2007) and has been shown to be correlated with clinical indicators of health such as persistence of chronic diseases and mortality (Kandula et al., 2007).

In this study, “perceived health status” is conceptualized as the subjective assessment of overall health by respondents during the time of the survey. The MEPS dataset reports perceived health status in five ordered categories: excellent (22%), very good (33%), good (30%), fair (11%) and poor (4%). For the purpose of this study, the five categories have been recoded to constitute two categories. The first three categories, excellent, very good and good health, have been coded as good health and the remaining two categories, fair and poor health, have been coded as poor health. Therefore, the self-reported health status variable will be used as a dichotomous variable in this study. In many public health studies, self reported health has been used a dichotomous variable after being recoded (Meer, Miller, & Rosen, 2003). The other rationale for using self reported health as a binary variable is because some studies have shown that there is no difference in outcome when the categories are dichotomized or used as continuous variable on a measure of patient self-report (Manor, Matthews, & Power, 2000)

Health Care Utilization

Health care utilization has been conceptualized and measured in many ways in previous research. Some studies have measured health care utilization based on the number of physician visits, mental health provider visits, routine use of health screening services and the use of other services such as vaccination (Fiscella, Franks, Doescher, & Saver, 2002).

In a study of racial concordance and health care use, health care utilization was measured by receipt of preventive services and receipt of needed health care services (Saha, Komaromy, Koepsell, & Bindman, 1999). Health care utilization is also measured by the number of hospitalizations, number of emergency room visits, and annual health care expenditures (Fiscella, Franks, & Clancy, 1998). Theoretically, researchers have pointed toward (Andersen, 1995) behavioral model of health care use, which shows that health care use is determined by a level of illness or need factor, enabling factors such as insurance and employment status, and predisposing factors such as age, race and education. Other researchers have indicated that personal factors like beliefs, attitudes and involvement in care can also impact health care utilization including the health care visit such as office-based visits or emergency room visits (L. A. Cooper, Hill, & Powe, 2002).

For this study, health care utilization was conceptualized as the use of both emergency (e.g., emergency room visits) and non-emergency health care services (e.g., office based doctor visits and outpatient doctor visits). Health care utilization was measured by whether or not individuals sought health care at office based health care agencies or outpatient doctor visits which would provide the same health care services, but would differ organizationally from doctor offices. Both type of services cater to as the USC. The reason for including other non-office based services like emergency room visits is because a significant proportion of the sample under analysis does not report having a usual source of care. As such, that proportion of the population is likely to treat the emergency room as their potential source of primary care for even minor health issues.

Chapter 5: Results

Descriptive Statistics

The final sample comprised of N=15,295 respondents. Total number of Black respondents in the study was 3,354, which correspond to the 46 million Blacks the United States population. Total number of White respondents in the sample was 11,941 which represented approximately 304 million Whites in the United States. The analyses in this study were carried out using Stata Statistical Software, version 11 (StataCorp LP, College Station, TX). All the analyses including descriptive and multivariate were adjusted for the MEPS' complex survey design. A p-value of 0.05 or less was considered statistically significant.

The baseline characteristics of the sample are reported in Table 5, which included socio-demographic variables such as race, marital status, employment status, poverty status (proxy for income levels), age, years of education, and geographic regions; current smoking status and residence in metropolitan statistical area (MSA). A list of baseline comorbid health conditions including diabetes, asthma, high-blood pressure and heart diseases were also included in the list. Other variables used in the analyses are usual source of care (USC) and self reported health (SRH), which have also been analyzed as outcome variables in the study.

The mean age of the Black respondents in the study was 43 years (SD=0.34) and means years of education 13 years (SD=0.09). For White respondents mean age was 47 years (SD= 0.25) and years of education are also 13 years (SD= 0.05), and both of which were significantly higher than for the Blacks. The average family size for Black respondents was higher than that for Whites (2.83 vs. 2.62, p<0.001). There was higher percentage of females in the Black cohort than in the White cohort (60% vs. 53%, p<0.001). Among the Blacks, 36% reported being married compared to 59% of the Whites that reported as married (p<0.001). A significantly higher percentage of Black respondents in the sample reported poor (33% vs. 15%, p<0.001). The percentage of the Blacks that were uninsured during the baseline was significantly higher than the Whites (17% vs. 11%, p<0.001). The incidence of diabetes, high blood pressure and strokes were higher for the Blacks, while the Whites had significantly higher incidences of other comorbid conditions, including high cholesterol, coronary heart disease, angina, emphysema, arthritis and other heart disease. A significantly lower percentage of Black respondents reported having usual source of care (76% vs. 83%, p<0.001). The percentage of Blacks that reported good health was 81% as opposed to 86% of Whites (p<0.001).

Logistic Regression Analysis of Self-reported health

In order to predict whether or not primary care experience impacted the self-reported health status of Blacks and Whites, a series of three logistic regression models were used. These three models helped us test our first two research questions and two hypotheses as stated earlier in Table 2.

Table 9 presents the results from the 3 logistic regression models. Self-reported health has been reconstructed into a binary variable. The first logistic regression modeled self-reported health as a function of age, years of education, family size, gender, marital status, geographical regions, poverty, residence in an MSA, employment status, smoking status, and with a range of co-morbid conditions such as coronary heart disease, angina, myocardial infarction, stroke, emphysema, other heart disease and high blood pressure, insurance status, race (Black or White) and whether had usual source of care.

The second logistic regression model included all the independent covariates used in the first model. In addition, it also included the primary care experience variable. The third model included all the covariates used in the second model plus an interaction term between primary experience and the indicator for the Black respondent.

Table 9 reports the odds ratios from these three logistic regressions along with their 95% confidence intervals. The odds ratio associated with a continuous explanatory variable reflects the probability of occurrence of the outcome being modeled for one-unit increase in that variable, with all other explanatory variables remains fixed. Odds ratio of greater than one reflects higher probability of occurrence of the outcome, while odds ratio of less than one signifies lower probability of occurrence; for binary covariates, odds

ratio may be interpreted similarly except that they reflect the probability of the occurrence of the outcome associated with the group indicated by the binary covariate (Hosmer & Lemeshow, 2000). In model 1, age was found to be a significant predictor of good perceived health (OR=0.98, $p<0.05$). An increase in age by an additional year decreases the likelihood of reporting good health by 2%. An additional year of education increases the probability of reporting good health by 6% (OR=1.06, $p<0.05$). Similarly, divorced or separated respondents were 36% less likely to report good health (OR=0.64, $p<0.05$). Respondents from the Northeast and Midwest were 33% and 34% more likely to report good health than their counterparts in the South. Compared to the high income respondents, respondents in the poor, low income and middle income categories were 71%, 55% and 35% respectively less likely to report good health. Smokers were 6% less likely to report good health status than non-smokers. Respondents who were employed and who resided in a MSA had 58% and 17% higher likelihood of reporting good health. People with high blood pressure were 36% less likely to report good health status. Of note, Blacks were 15% less likely to report good health status.

Except for the odds ratio associated with MSA, the magnitude and direction of the estimated odds ratios in the other two models were very similar. In the second model, when primary care experience was included in the logistic regression of perceived good health status, the corresponding odds ratio indicates that 1 unit increase in good primary care experience would result in 14% less likelihood of reporting good health status. The final model included an interaction term between an indicator for Black and primary care experience was included to assess whether the Blacks with bad primary care experience influence the likelihood of reporting good health, The estimated odds ratio of 0.91 which was significant only at 10% level of significance appears to indicate that Black respondents with bad primary care experience were less likely to report good health.

Determinants of Usual Source of Care/Primary Care

The determinants for whether a subject had usual source of care were assessed through a logistic regression model. The usual source of care is a binary variable indicating whether the respondent had a usual source of care or not. The probability of having a usual source of care was modeled as a function of age, years of education, family size, gender, marital status, geographical regions, income categories, residence in MSA, employment status, current smoking status, insurance status, race (Black or White) and baseline co-morbid conditions. Table 10 presents the results from the analyses.

Age was found to be a significant predictor of having a usual source of care (OR=1.03, p<0.01) – an additional year of age increases the likelihood of having a usual source of care by 3%. An additional member in the family increases the probability of having a usual source of care (OR=1.08, p<0.01). Female respondents were 71% more likely to have a usual source of care. Subjects who lived in the Northeast US had 87% higher probability of having a usual source of care than respondents from the South. Compared to high income people, the poor (44%), low income (44%) and middle income (17%) people had lower likelihood of having a usual source of care. Respondents who resided in a MSA were 27% less likely to have a usual source of care. An intriguing result was that employed respondents were 18% less likely to have a usual source of care Respondents with high cholesterol and high blood pressure were 13% and 44% more likely to have a usual source of care than those without those comorbid conditions. The uninsured were 69% less likely to have a usual source of care. Race also contributed to a lack of access to care – compared to Whites, Blacks were 21% less likely to have access to a usual source of care.

We also assessed the determinants of primary care experience as functions of various factors as well as race (see Table 13 in Appendix A1). The significant factors include age, family size, female gender, marital status, western geographic region, middle income category, metropolitan statistical area, high cholesterol, emphysema, other heart disease, high blood pressure and being uninsured. Importantly, race was not an independent predictor of primary care experience.

Health Care Utilization

In order to test our last two research questions and corresponding hypotheses as stated in Table 2 we conducted a series of ZIP regression models to measure disparities in health care utilization. Health care utilization in this research study was operationalized as office-based doctor visits, outpatient doctor visits and emergency room visits. Since health care utilization variables are often measured in terms of number of visits to the care provider, such measures are modeled using count regression in general, and by using either a negative binomial regression or Poisson regression in particular (Cameron & Trivedi, 1998). However, it is often observed that health care utilization measures tend to have critical mass at zero, as significant percentages of respondents often report no visit to the provider (Cheung, 2002). In order to deal with this aspect of data in a health care utilization study ZIP regression models are used to predict the mean number of visits to the provider (Lambert, 1992)

The ZIP framework models zero and non-zero visits separately. The non-zero visits are measured using a Poisson regression. Zero visits, on the other hand, are assumed to be generated in one of the following two ways: the respondent indeed did not have any visit; or the respondent’s probability of a visit follows Poisson regression and zero-value simply represents that the respondent’s visits to the provider still follows Poisson distribution that takes value zero. A binary logit model is first used to predict whether respondents had zero or non-zero visits. Then a count regression model is used to estimate the number of visits for the non-zero visits.

Table 11 shows the results from the Zero Inflated Poisson (ZIP) regression model for the number of office-based doctor visits. This ZIP model included the following predictor variables: age, years of education, family size, gender, marital status, geographic regions, poverty status, residence in an MSA, employment status, smoking status, insurance status, racial status, primary care experience, whether had usual source of care, Black interacted with primary care experience and the list of co-morbid conditions outlined earlier. The same set of predictors was used in both parts of the model to predict zero visits as well as to predict non-zero visits. The first two columns correspond to the Poisson regression for the non-zero visits, while the last two columns correspond to the logistic regression to predict the probability of zero visits. The interpretation of the coefficients from the Poisson regression is in terms of the expected log (count of visits) as outlined (J. S. Long & Freese, 2001)Although these interpretations for the estimated coefficients are not very intuitive, they do indicate the direction of the impact of the corresponding coefficients.

As seen from Table 11, an additional year of life increases the expected log (office-based doctor visits) by 0.01 times. Compared to male respondents, the expected log (office-based doctor visits) for the female respondents was lower by 0.05. A widowed respondent had 0.16 times less log (office-based doctor visits) than a married respondent. Compared to respondents from the South, respondents from North had 0.1 times higher expected log (office-based doctor visits), while respondents from the Midwest and West had 0.08 and 0.09 times lesser expected log (office-based doctor visits), respectively. A poor subject had 0.09 times higher expected log (office-based doctor visits) than a high income respondent. A respondent living in an MSA had 0.14 times higher expected log (office-based doctor visits), while an employed subjects had 0.21 times less expected log (office-based doctor visits). A respondent diagnosed with high cholesterol and high blood pressure had expected log (number of office-based doctor visits) 0.06 and 0.16 times higher than a respondent without those diagnoses, respectively. As compared to respondents with insurance, a respondent without insurance had expected log (office-based doctor visits) is less by 0.27. Respondents with usual source of care had expected log (office-based doctor visits) 0.11 times more than respondents without usual source of care. Compared to Whites, Black respondents had 0.11 less expected log (office-based doctor visits). Respondents who had better primary care experience had 0.05 times higher expected log (office-based doctor visits) than respondents who did not have good primary care experience.

The third column in Table 11 shows the estimated odds ratios from the logistic regression predicting zero visits. Covariates that predicted lower likelihood of a zero visit were age, years of education, female gender, residence in an MSA, high cholesterol, other heart disease, high blood pressure, presence of usual source of care and primary care experience. On the other hand, covariates that were predicted higher probability of a zero visit were: family size, the West region, poor, employed, diagnosis of emphysema, uninsured and race category Black.

Table 12 presents the estimates of ZIP regression of outpatient doctor visits. The predictor variables in this equation were the same as the first ZIP equation in which office-based doctor visit was modeled. The results indicate that female respondents had an expected log (number of outpatient visits) 0.32 times less when compared to male respondents. Employed respondents had expected log (number of outpatient visits) 0.37 less than respondents who were not employed. Black respondents had expected log (number of outpatient visits) 0.89 more than White respondents. Respondents who had better primary care experience had expected log (number of outpatient visits) 0.22 more than respondents who worse primary care experience.

With regard to the probability of zero visits modeled by the logistic regression, age, female gender, married and divorced (relative to unmarried) respondents had higher likelihood of zero outpatient doctor visits. On the other hand, the uninsured and the Black respondents had higher likelihood of having zero outpatient doctor visits.

Emergency Room Visits

Since a significant portion of the sample in the study reported not having an usual source of care as well as insurance coverage, emergency room visits by respondents were also considered to estimate patterns of health care utilization. In order to estimate emergency room visits another ZIP regression model was used. The results from this analysis are outlined in Table 13. In this equation, the same set of predictor variables used for modeling the number of office-based doctor visits were used.

The results indicate that the expected log (number of emergency room visits) decreases by 0.01 times with an additional year of life. Respondents from the Midwest area of the US had 0.29 less expected log (number of emergency room visits) than those from the South. An employed respondent had expected log (number of emergency visits) 0.18 less than respondents who were not employed. The expected log (number of emergency room visits) were 0.18 more for respondents who had a condition of high blood pressure. Those respondents who had a usual source of care had an expected log (number of emergency room visits) 0.22 more than respondents without access to USC. Racial status and primary care experience were not significant in predicting emergency room visits. The logistic regression predicting the zero emergency room visits did not appear to identify any specific predictor as significant. There were a few determinants, including widowed status, Northeast, poor, and emphysema diagnosis that were significant at 10 percent level of significance.

Chapter 6: Discussion

The results of the study confirm the disparities existing between Whites and Blacks on various domains of access and utilization of health care. In this research a significant portion of Blacks compared to Whites (17% versus 11%) did not have health insurance coverage. Previous research has shown that uninsured African-Americans and Hispanics have far worse health outcomes than uninsured Whites (Blanton & Hoffman, 2005). Insurance status has often been recognized as an important factor for having a usual source of care. In this research a significantly lower proportion of Blacks (76%) versus Whites (83%) report not having a usual source of care. Earlier studies have indicated that disparities in access to a usual source of care can be greatly reduced by greater equity in health insurance coverage (Blanton & Hoffman, 2005). Studies have shown a correlation between insurance status and preventable hospitalizations. A study in California indicated that people who are more likely to be uninsured face greater threats of preventable hospitalizations (Bindman et al., 1995). Some studies have also indicated insurance status as a major barrier to access necessary inpatient care (Andrulis, 1998). Thus, Blacks without health care insurance and access to a usual source of care face greater risks with their health status.

Earlier studies have shown the disproportionate burden that Blacks face with respect to certain diseases such as diabetes (Tull & Roseman, 1995). In this study a significantly higher proportion of Blacks reported having diabetes and high blood pressure. The study results also indicate that there was disparity between Blacks and Whites on self-reported health status. Earlier studies have shown that Blacks are more likely to report poorer health status as compared to Whites on various domains of physical and mental health (Schultz et al., 2000). Self-reported health is often considered an important indicator of health status and hence it is important to note the interconnections between racial status and self-reported health. Results from the logistic regression indicate that Blacks were 15% less likely to report good health status. Furthermore, Blacks who report bad primary care experience are more likely to report poorer health status. The relationship between primary care experience and health status is supported through this research. Earlier studies by Shi et al. (1999), and Shi and Starfield (2000) indicate that better primary care experience is associated with better health outcomes even after controlling for insurance status, income, and education. This research demystifies other studies that claim that good health status is often linked with income inequalities. While the impact of income inequality and insurance status has a bearing on individual health, this study also indicates that by developing a better primary care interface, the health status of Blacks can be buffered. Good interpersonal relationships between the care providers and Blacks can mitigate some of the adverse effects of income inequalities that Blacks face.

With respect to health care utilization, the results indicate that the uninsured used much less health care as compared to the insured. Literature has documented the financial barriers to health care access due to the lack of health insurance is clearly an important factor contributing to lack of access (Anderson, 2005). Blacks were less likely to use office-based doctor care and those who had a usual source of care were more likely to seek care. Racial ethnic disparities in access to care have often been attributed to lack of health insurance and hence lack of usual source of care. Many research studies have indicated that by expanding insurance coverage to racial ethnic groups and by ensuring access to usual source of care, many disparities in health can be ameliorated (Waidman & Rajan, 2000). On the other hand, our results have earlier suggested that Blacks report worse primary care experience as compared to Blacks, hence lower levels of utilization of health care can also be attributed to lower levels of satisfaction with the healthcare system. One of the important contributions of this study is that it demonstrates that those who have good primary care experiences are more likely to use office-based doctor visits. This is one of the few research studies that have established the connection between good primary care experience and health care utilization. Given that primary care is the primary gateway to the health care system in the United States, it is very important to understand how patients’ perceptions about the care they receive and their experiences within the system may impact their utilization patterns and subsequently their health (Burstin & Clancy, 2005).

With regards to outpatient doctor visits Blacks had more outpatient visits when compared to Whites and females used less outpatient care compared to males. Earlier research has shown that Blacks and whites report similar utilization rates of outpatient medical care, but blacks more often report unmet needs, barriers to care, and dissatisfaction with care (Pathman et al., 2006). Even moving beyond differences in socioeconomic status, the quality of provider-patient interactions and quality of care between Blacks and Whites were different (Pathman et al., 2006). The other important outcome of the results is that for the zero visit part that was modeled separately, Blacks and the uninsured were more likely to report zero use of outpatient care. One way to interpret these results is that a higher percentage of Blacks reported zero use of outpatient care as compared to Whites. On the other hand, among those who reported using outpatient care, Blacks were more likely to report higher usage. Once again primary care experience was significant for the overall population in outpatient health care use, meaning that those who had better primary care experiences were more likely to use outpatient health care.

With respect to emergency room care, racial status was not significant. While some earlier studies have shown that Blacks are more likely to use the emergency room for health care since they are also more likely to be uninsured, we found no evidence of that in this research study. Disparities in use of the emergency services among African American, white, and Hispanic patients have been explained by differences in age, health insurance coverage, having a regular source of care, and having barriers to health care (Baker, Stevens, and Brook 1996). However, it is important to understand that even though the rates of utilization may be similar between Whites and Blacks, evidence has suggested that the quality of care they receive differs by race (Mayberry, Mili, & Offili, 2000). Primary care experience was not significant in predicting emergency room visits either. This is understandable since it is likely that most emergency visits are based on urgent medical care needs and therefore primary care experience is not expected to significantly influence the decision to seek emergency care.

This research clearly explains the importance of good primary care experience in predicting good health status. Good primary care experience resulted in better health outcomes for Blacks. Also, primary care experience impacted the office-based health care service utilization of Blacks. Those who had better primary care experience were more likely to report seeking health care at doctor’s offices. Thus, this study is able to quantitatively make a case that better primary care experience for Blacks may result in mitigating the existing health disparities between Blacks and Whites on self-reported health status and health care utilization. Further research using both quantitative and qualitative methods can further explore the importance of primary care experience and its link to health disparities.

Limitations of the Study

The current research study has several limitations. The secondary nature of the data limits the researcher’s ability to study some relevant dimensions of racial differences as well as the attributes of primary care. One important variable in studying health disparities is the neighborhood variable, as several studies have shown significant association between health status and place of residence. However, the MEPS 2007 dataset that is available in the public domain and which is used for this proposed research study, does not record the neighborhood variable. Also, in order to analyze primary care experience a variety of dimensions have to be taken into consideration; for example, the length of time the provider and the patient have interacted, severity of the illness, communication patterns and also the cultural beliefs of both the provider and patient. This information is not available in the MEPS dataset.

Causal relationships between *primary* care experience and the outcome measures are also difficult to establish given the cross-sectional nature of the dataset. Longitudinal studies might be more appropriate to understand disparities in primary care. Finally, most of the analyses of primary care will be based on self-report, and as such it is difficult to estimate how accurately the perception data reflects the actual quality of primary care in the United States.

Chapter 7: Implications for Policy and Practice

Health care delivery mechanisms have to address the preferences and specific needs of minority patients. Ensuring that can improve patient's perception of the health care quality they receive and can also lead to a more positive relationship with their health care providers. Patients who report satisfaction with physician's style of communication, and show trust in them report better health outcomes and greater treatment adherence (Doescher et al., 2000).

As a profession social work is deeply committed to issues of social justice, equity and fairness for the marginalized. Our professional values provide compelling reasons for working towards service equity for all and health care more specifically (Copeland, 2005). As social workers, we approach equitable health care services for all as a fundamental human right and not an entitlement and privilege (Kennedy, 2005). One of the essential arguments, I wish to reinforce through my research is the rights based approach where we look at effective service delivery as a prerogative of basic rights of individuals and groups. When we change our focus from service delivery to rights based approach it is easier to comprehend why we need to change our institutions like the health care systems so that those who exercise the right for good health are able to access services without barriers.

The results of this study can have many possible implications for social work in health care systems as well as for social workers who advocate for effective policy changes. As social workers we have to begin the process by self introspection, by understanding and analyzing our own values and biases and how they impact our practice behaviors. Being aware of one's one individual and collective identity and how that impacts our professional behavior is very essential before we begin addressing issues of systems change and cultural competency within health care institutions. Below are a few recommendations about how social work professionals can make a difference vis-a-vis health care disparities in the United States.

- At the micro level we have to begin to research and design effective cultural competency models which can be used to train culturally competent health care providers who can provide effective clinical care to Blacks. We will also have to train providers to confront their own subconscious biases and values and how that may impact clinical outcomes in their patients. Social workers have to be at the forefront of this research and training.
- The idea of "cultural leverage" coined by Fisher et al. (2007) is a relevant strategy in addressing health care disparities. Under this strategy the cultural ideas, philosophies and values of racial ethnic groups are used to catalyze behavior changes in patients and practitioners. Social workers working within the health care system can work to create mechanisms to foster and sustain cultural leverage. The idea of cultural leverage is conceptualized such that this exchange happens at three levels; individual/patient level, level of access and health care system in general (Fisher, Burnet, Huang, Chin, & Cagney, 2007)
- It is impossible to undermine the impact of social determinants and how they create, accentuate and sustain health disparities. One of the most important variables that could not be studied in this research is residential segregation. Studies have shown how minority communities have had adverse health outcomes associated with living in segregated areas without access to decent socio-economic goods(Williams & Jackson, 2005). Social workers will have to research and document the impact of residential segregation and also advocate for infusion of physical and moral capital to transform infrastructure and opportunities in the impoverished communities.
- One of the interesting things we saw in this research is that for both Blacks and Whites the mean years of education were the same. However, a significantly higher number of Blacks reported poor than Whites. Research has documented the correlation between falling income levels among Blacks through the 1980's and how that impacted infant

mortality in the Black community(Cooper, 1981). Income equality between Blacks and Whites would also be a crucial component in addressing health disparities. Social workers have to be cognizant and proactive about the impact of multiple social policies on the health of Black populations.

- Some health policy researchers and health advocates have argued that by using evidence based guidelines and following standards of care health care providers can create significant changes in the health of Black patients. It is also seen that minority health care providers are more likely to serve in underserved neighborhoods, so by trying to advocate for increasing the number of Black health care professionals, Social Workers can help to facilitate health care access (Williams & Jackson, 2005).
- Finally, bringing about transformations in institutions and structures that will allow the marginalized to flourish requires tremendous amount of political will. Social workers will have to advocate for structural changes in health policy that will take into account the historical marginalization and contemporary inequities that encompass the lives of many Black Americans. Policies that will take into account the social and cultural determinants of health will be most successful in eliminating health disparities. Social workers will have to continue the struggle for change.

Table 5: Baseline Characteristics of Study Sample (n=15, 295)

Variable	**Black**		**White**		
N	**4.69E+07**		**3.04E+08**		
n	**3354**		**11941**		
	Mean	**SD**	**Mean**	**SD**	**P-Value**
Continuous Variables					
Age	43.13	0.34	47.36	0.25	0.000
Years of education	12.63	0.09	13.46	0.05	0.000
Family size	2.83	0.05	2.62	0.02	0.000
Discrete Variables	**n**	**%**	**n**	**%**	
Female gender	2009	59.9	6373	53.37	0.000
Marital Status					
Married	1224	36.49	7049	59.03	0.000
Widowed	288	8.59	908	7.6	0.721
Divorced or separated	641	19.11	1704	14.27	0.000
Not married	1200	35.78	2280	19.09	0.000
Geographic Regions					
North East	475	14.16	2031	17.01	0.220
Midwest	591	17.62	3362	28.16	0.001
West	328	9.78	2543	21.3	0.000
South	1960	58.44	4005	33.54	0.000
Income Categories					
Poor	1097	32.71	1844	15.44	0.000
Low income	617	18.4	1469	12.3	0.000
Middle income	939	28	3485	29.19	0.922
High income	701	20.9	5143	43.07	0.000
Belongs to MSA	2932	87.42	9158	76.69	0.000
Employed	2116	63.26	7999	67.08	0.188
Currently smoke	674	20.76	2559	21.7	0.635
Uninsured	554	16.52	1311	10.98	0.000
Comorbid Conditions					
Diabetes	411	12.32	1021	8.57	0.000
Asthma	370	11.07	1288	10.81	0.479
High blood pressure	1272	38.18	3534	29.71	0.000
High cholesterol	735	22.27	3445	29.1	0.000
Coronary heart disease	66	1.98	476	4	0.000
Angina	55	1.65	310	2.6	0.027
Myocardial infarction	81	2.43	459	3.85	0.002
Stroke	117	3.5	352	2.95	0.825
Emphysema	28	0.84	242	2.03	0.000
Arthritis	724	21.77	2988	25.18	0.000
Other heart disease	194	5.82	917	7.71	0.001
Whether had usual source of care	2504	76.06	9784	82.56	0.000
Whether reported good health	2732	81.45	10261	85.93	0.000

Table 6: Descriptive Statistics for Components of Primary Care Experience

Primary Care Experience Components	Black N	Black %	White N	White %	P-value
Whether goes to USC for new health problem	2,393	71.35	9,513	79.67	0
Whether goes to USC for preventive healthcare	2,373	70.75	9,420	78.89	0
Whether goes to USC for ongoing health problems	2,379	70.93	9,408	78.79	0
Whether goes to USC for referrals	2,382	71.02	9,428	78.95	0
Whether provider asks about other treatments	1,825	54.41	7,306	61.18	0
Whether provider shows respect					0
Never	80	2.39	266	2.33	
Sometimes	178	5.31	564	4.72	
Usually	488	14.55	1,879	15.74	
Always	1,432	42.70	5,578	46.71	
Whether provider help decide treatment					0
Never	233	6.95	532	4.46	
Sometimes	283	8.44	942	7.89	
Usually	493	14.70	2,002	16.77	
Always	1,259	37.54	5,288	44.28	
Whether provider explains treatment options	2,270	67.68	8,747	73.25	0

Table 7: Estimation of Cronbach's Alpha

Item	Item-test correlation	Item-rest correlation	Average interitem covariance	Alpha
Whether goes to USC for new health problems	0.714	0.667	1.499	0.7558
Whether goes to USC for preventive health care services	0.721	0.676	1.499	0.7556
Whether goes to USC for ongoing health problems	0.704	0.655	1.499	0.756
Whether goes to USC for referrals	0.704	0.655	1.497	0.756
Whether the USC provider asks about other treatments	0.637	0.512	1.357	0.751
Whether USC provider shows respect	0.752	0.511	1.044	0.793
Whether USC provider helps decide	0.793	0.618	0.996	0.739
Whether USC provider explains treatment options	0.710	0.613	1.312	0.738
Test scale			1.338	0.779

Note: Estimated using Stata/SE 11.

Table 8: Summary of Primary Care Experience Variable

	Mean	Median	Minimum	Maximum	SD
Primary care experience	0.76	1.50	-9.00	2.50	1.31

Table 9: Logistic Regressions of Good Perceived Health

	Whether reported good perceived health (N=15,295)					
	Model 1		Model 2		Model 3	
Variables	**OR**	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**
Age	0.98**	[0.98,0.99]	0.98**	[0.98,0.99]	0.98**	[0.98,0.99]
Years of education	1.06**	[1.05,1.08]	1.07**	[1.05,1.08]	1.07**	[1.05,1.08]
Family size	1.01	[0.97,1.06]	1.02	[0.97,1.06]	1.02	[0.97,1.06]
Female gender	0.95	[0.83,1.08]	0.97	[0.85,1.10]	0.97	[0.85,1.11]
Marital Status (Reference: Single)						
Married	0.85	[0.69,1.05]	0.86	[0.70,1.06]	0.86	[0.70,1.06]
Widowed	1.15	[0.88,1.49]	1.15	[0.88,1.51]	1.15	[0.88,1.51]
Divorced or separated	0.64**	[0.52,0.79]	0.64**	[0.52,0.79]	0.64**	[0.52,0.79]
Geographic Regions (Reference: East)						
North East	1.33**	[1.10,1.60]	1.34**	[1.11,1.62]	1.34**	[1.11,1.62]
Midwest	1.34**	[1.14,1.56]	1.34**	[1.14,1.56]	1.33**	[1.14,1.56]
West	1.07	[0.91,1.26]	1.06	[0.90,1.24]	1.06	[0.90,1.24]
Income Category (Reference: High Income)						
Poor	0.29**	[0.23,0.36]	0.29**	[0.23,0.36]	0.29**	[0.23,0.36]
Low income	0.45**	[0.37,0.56]	0.45**	[0.37,0.55]	0.45**	[0.37,0.55]
Middle income	0.65**	[0.55,0.77]	0.65**	[0.55,0.77]	0.65**	[0.55,0.77]
Belongs to MSA	1.17**	[1.02,1.34]	1.14*	[1.00,1.31]	1.14*	[1.00,1.32]
Employed	1.58**	[1.37,1.83]	1.59**	[1.38,1.83]	1.59**	[1.38,1.83]
Currently smoke	0.94**	[0.90,0.99]	0.94**	[0.90,0.99]	0.94**	[0.90,0.99]
Comorbid Conditions						
High cholesterol	0.98	[0.88,1.09]	0.99	[0.90,1.10]	0.99	[0.90,1.10]
Coronary heart disease	1.03	[0.86,1.24]	1.03	[0.86,1.24]	1.03	[0.86,1.24]
Angina	1.22	[0.92,1.63]	1.22	[0.93,1.60]	1.22	[0.93,1.60]
Myocardial infarction	0.79	[0.51,1.23]	0.8	[0.52,1.22]	0.8	[0.52,1.22]
Stroke	0.81	[0.55,1.21]	0.82	[0.55,1.20]	0.82	[0.55,1.20]
Emphysema	1.07	[0.80,1.42]	1.07	[0.81,1.40]	1.07	[0.81,1.40]
Other heart disease	0.82	[0.64,1.04]	0.83	[0.65,1.05]	0.82	[0.65,1.05]
High blood pressure	0.64**	[0.50,0.83]	0.67**	[0.51,0.86]	0.67**	[0.52,0.86]
Uninsured	0.99	[0.84,1.18]	0.92	[0.77,1.09]	0.92	[0.77,1.09]
Whether had usual source of care	0.91*	[0.81,1.01]	0.95	[0.87,1.05]	0.96	[0.87,1.05]
Whether black	0.85**	[0.73,0.99]	0.85**	[0.73,0.99]	0.93	[0.77,1.11]
Primary care experience			0.86**	[0.81,0.91]	0.87**	[0.82,0.93]
Black interacted with primary care experience					0.91*	[0.82,1.01]

Note: OR=Odds Ratio; * p<0.10, ** p<0.05

Table 10: Logistic Regression of Usual Source of Care

	Whether had usual source of care	
Variables	**OR**	**95% CI**
Age	1.03**	[1.03,1.04]
Years of education	1.01	[0.99,1.03]
Family size	1.08**	[1.03,1.14]
Female gender	1.71**	[1.54,1.89]
Marital Status (Reference: Single)		
Married	1.15	[0.97,1.35]
Widowed	1.25	[0.87,1.80]
Divorced or separated	0.99	[0.83,1.18]
Geographic Regions (Reference: East)		
North East	1.87**	[1.44,2.44]
Midwest	1.17	[0.94,1.45]
West	0.92	[0.74,1.14]
Income Categories (Reference: High Income)		
Poor	0.66**	[0.55,0.81]
Low income	0.66**	[0.55,0.79]
Middle income	0.83**	[0.71,0.97]
Belongs to MSA	0.73**	[0.60,0.89]
Employed	0.82**	[0.72,0.94]
Currently smoke	0.96	[0.91,1.02]
Comorbid Conditions		
High cholesterol	1.13**	[1.06,1.21]
Coronary heart disease	1.01	[0.82,1.24]
Angina	0.81	[0.51,1.29]
Myocardial infarction	0.94	[0.74,1.19]
Stroke	1.03	[0.81,1.30]
Emphysema	0.92	[0.70,1.21]
Other heart disease	1.03	[0.85,1.24]
High blood pressure	1.44**	[1.25,1.66]
Uninsured	0.31**	[0.27,0.37]
Whether black	0.79**	[0.67,0.93]

Note: OR=Odds Ratio; * p<0.10, ** p<0.05

Table 11: Zero-Inflated Poisson Regression for Number of Office Visits

	# of office-based doctor visits			
	Non-zero visits		Excess zero visits	
Variables	**Coeff**	**95% CI**	**OR**	**95% CI**
Age	0.01**	[0.01,0.01]	0.98**	[0.97,0.98]
Years of education	0.01	[-0.00,0.02]	0.97**	[0.95,0.99]
Family size	-0.05**	[-0.08,-0.03]	1.12**	[1.08,1.17]
Female gender	0.18**	[0.13,0.23]	0.49**	[0.43,0.55]
Marital Status (Reference: Single)				
Married	0.01	[-0.09,0.10]	0.91	[0.79,1.06]
Widowed	-0.16**	[-0.28,-0.04]	1.02	[0.75,1.37]
Divorced or separated	0	[-0.11,0.11]	1.11	[0.94,1.31]
Geographic Region (Reference: East)				
North East	0.10**	[0.03,0.18]	1.02	[0.88,1.18]
Midwest	-0.08**	[-0.16,-0.01]	1.01	[0.89,1.15]
West	-0.09**	[-0.17,-0.02]	1.28**	[1.09,1.49]
Income Categories (Reference: High Income)				
Poor	0.09**	[0.00,0.17]	1.21**	[1.02,1.43]
Low income	0.01	[-0.07,0.09]	1.14	[0.94,1.37]
Middle income	0.01	[-0.05,0.08]	0.96	[0.84,1.11]
Belongs to MSA	0.14**	[0.07,0.21]	0.86**	[0.75,0.98]
Employed	-0.21**	[-0.27,-0.15]	1.30**	[1.15,1.48]
Currently smoke	0	[-0.01,0.02]	1.01	[0.97,1.05]
Comorbidities				
High cholesterol	0.06**	[0.02,0.11]	0.85**	[0.79,0.91]
Coronary heart disease	-0.01	[-0.06,0.04]	1.11	[0.92,1.34]
Angina	0.02	[-0.05,0.10]	1.13	[0.86,1.47]
Myocardial infarction	0.06	[-0.03,0.15]	1.03	[0.86,1.24]
Stroke	0.02	[-0.08,0.12]	0.95	[0.80,1.12]
Emphysema	0.04	[-0.11,0.20]	1.32**	[1.05,1.66]
Other heart disease	0.15**	[0.07,0.22]	0.89**	[0.80,0.99]
High blood pressure	0.16**	[0.10,0.22]	0.64**	[0.53,0.78]
Uninsured	-0.27**	[-0.37,-0.16]	1.93**	[1.65,2.25]
Whether had usual source of care	0.11**	[0.04,0.17]	0.55**	[0.45,0.66]
Whether black	-0.11**	[-0.22,-0.01]	1.35**	[1.17,1.54]
Primary care experience	0.05**	[0.03,0.07]	0.86**	[0.82,0.90]
Black interacted with primary care experience	0.05	[-0.02,0.12]	1	[0.91,1.09]
Constant	0.96**	[0.69,1.23]	2.41**	[1.65,3.52]

Note: Coeff= Coefficient; OR=Odds Ratio; * p<0.10, ** p<0.05

Table 12: Zero-Inflated Poisson Regression for Number of Outpatient Doctor Visits

	# of outpatient doctor visits			
	Non-zero visits		Excess zero visits	
Variables	**Coeff**	**95% CI**	**OR**	**95% CI**
Age	0.01	[-0.01,0.02]	0.99**	[0.98,1.00]
Years of education	0	[-0.04,0.05]	1.01	[0.98,1.05]
Family size	-0.02	[-0.14,0.11]	1.07	[0.97,1.18]
Female gender	-0.32**	[-0.59,-0.04]	0.72**	[0.59,0.88]
Marital Status (Reference: Sigle)				
Married	-0.17	[-0.67,0.34]	0.70**	[0.51,0.97]
Widowed	-0.45	[-1.15,0.26]	1.01	[0.59,1.71]
Divorced or separated	-0.37	[-0.92,0.17]	0.64**	[0.45,0.91]
Geographic Region (Reference: East)				
North East	-0.03	[-0.50,0.44]	0.81	[0.57,1.17]
Midwest	0.04	[-0.42,0.50]	0.8	[0.57,1.12]
West	0.34	[-0.30,0.98]	1.68**	[1.12,2.50]
Income Categories (Reference: High Income)				
Poor	0.40*	[-0.00,0.81]	1.39**	[1.03,1.87]
Low income	-0.04	[-0.78,0.71]	1.29	[0.79,2.09]
Middle income	0.15	[-0.32,0.63]	1.18	[0.84,1.66]
Belongs to MSA	-0.11	[-0.64,0.41]	1.05	[0.75,1.47]
Employed	-0.37**	[-0.61,-0.12]	1.04	[0.90,1.21]
Comorbidities				
Currently smoke	0.01	[-0.10,0.13]	0.99	[0.91,1.07]
High cholesterol	-0.06	[-0.20,0.08]	0.87*	[0.75,1.02]
Coronary heart disease	-0.08	[-0.20,0.04]	0.95	[0.77,1.17]
Angina	-0.02	[-0.16,0.12]	1.02	[0.81,1.29]
Myocardial infarction	-0.12	[-0.28,0.05]	1.07	[0.84,1.36]
Stroke	-0.02	[-0.62,0.59]	0.73*	[0.51,1.05]
Emphysema	0.2	[-0.20,0.60]	0.98	[0.57,1.68]
Other heart disease	0.39	[-0.12,0.89]	0.9	[0.67,1.20]
High blood pressure	-0.04	[-0.26,0.18]	0.84*	[0.69,1.02]
Uninsured	0.5	[-0.18,1.18]	1.89**	[1.26,2.83]
Whether had usual source of care	0	[-0.19,0.18]	0.75*	[0.54,1.03]
Whether black	0.89**	[0.36,1.41]	1.55**	[1.12,2.16]
Primary care experience	0.22**	[0.10,0.34]	1.06	[0.96,1.17]
Black interacted with primary care experience	-0.09	[-0.36,0.19]	0.87	[0.73,1.04]
Constant	0.05	[-1.12,1.23]	3.09**	[4.95,34.57]

* p<0.10, ** p<0.05

Table 13: Zero-Inflated Poisson Regression for Number of Emergency Room Visits

	# of emergency room visits			
	Non-zero visits		**Excess zero visits**	
Variables	**Coeff**	**95% CI**	**OR**	**95% CI**
Age	-0.01**	[-0.02,-0.00]	0.99	[0.98,1.00]
Years of education	0	[-0.06,0.06]	1.04	[0.96,1.13]
Family size	-0.08	[-0.17,0.02]	1	[0.90,1.11]
Female gender	0.01	[-0.23,0.25]	0.8	[0.61,1.06]
Marital Status (Reference: Single)				
Married	-0.2	[-0.54,0.14]	0.84	[0.57,1.23]
Widowed	-0.12	[-0.62,0.38]	0.56*	[0.28,1.11]
Divorced or separated	-0.01	[-0.36,0.34]	0.81	[0.54,1.21]
Geographic Region (Reference: East)				
North East	-0.23	[-0.52,0.06]	0.73*	[0.51,1.05]
Midwest	-0.29**	[-0.57,-0.01]	0.70*	[0.49,1.01]
West	-0.24	[-0.58,0.10]	0.86	[0.57,1.30]
Income Category (Reference: High Income)				
Poor	0.40*	[-0.01,0.81]	0.64*	[0.38,1.06]
Low income	0.26	[-0.10,0.62]	0.8	[0.52,1.22]
Middle income	0.28	[-0.07,0.62]	0.97	[0.64,1.46]
Belongs to MSA	0.24	[-0.05,0.54]	1.21	[0.81,1.79]
Employed	-0.18**	[-0.34,-0.02]	1.04	[0.87,1.24]
Currently smoke	0.02	[-0.04,0.08]	0.99	[0.91,1.07]
Comorbidities				
High cholesterol	-0.06	[-0.13,0.01]	0.91	[0.80,1.04]
Coronary heart disease	-0.01	[-0.10,0.08]	0.98	[0.80,1.19]
Angina	-0.04	[-0.19,0.11]	1.07	[0.84,1.37]
Myocardial infarction	0.24	[-0.06,0.54]	0.92	[0.64,1.32]
Stroke	0	[-0.23,0.24]	0.84	[0.62,1.14]
Emphysema	0.03	[-0.18,0.23]	1.50*	[1.00,2.26]
Other heart disease	0.14	[-0.13,0.40]	0.85	[0.65,1.12]
High blood pressure	0.18**	[0.00,0.35]	1	[0.81,1.22]
Uninsured	0.05	[-0.24,0.34]	1.23	[0.86,1.78]
Whether had usual source of care	0.22**	[0.09,0.35]	1.14	[0.91,1.44]
Whether black	0.01	[-0.30,0.33]	0.72	[0.48,1.07]
Primary care experience	0.1	[-0.03,0.23]	1.05	[0.89,1.23]
Black interacted with primary care experience	0.03	[-0.16,0.22]	1.08	[0.85,1.38]
Constant	-0.12	[-1.23,0.99]	2.59	[0.63,10.59]

* p<0.10, ** p<0.05

Appendix A

Table 14: Regression of Primary Care Experience (PCE)

Variables	Odds Ratio [95% Confidence Interval]
	1.01** [1.01,1.01]
Years of education	1.01 [1.00,1.02]
Family size	1.05** [1.02,1.07]
Female gender	1.28** [1.22,1.34]
Married	1.13** [1.04,1.24]
Widowed	1.10 [0.97,1.24]
Divorced or separated	1.06 [0.96,1.17]
North East	1.10 [0.97,1.26]
Midwest	1.00 [0.88,1.14]
West	0.88** [0.79,0.98]
Poor	0.99 [0.91,1.07]
Low income	0.91* [0.82,1.01]
Middle income	0.98 [0.91,1.05]
Belongs to MSA	0.87** [0.77,0.97]
Employed	0.99 [0.94,1.04]
Currently smoke	0.99 [0.97,1.01]
High cholesterol	1.10** [1.07,1.13]
Coronary heart disease	0.98 [0.94,1.02]
Angina	0.95 [0.88,1.02]
Myocardial infarction	1.01 [0.95,1.08]
Stroke	0.97 [0.90,1.04]
Emphysema	0.92** [0.87,0.97]
Other heart disease	1.05* [0.99,1.10]
High blood pressure	1.18** [1.11,1.26]
Uninsured	0.56** [0.51,0.61]
Whether black	0.97 [0.90,1.05]

* p<0.10, ** p<0.05

REFERENCES

Andersen, R. M. (1995). Revisiting the behavioral model and acces to medical care: does it matter? *Journal Of Health and Social Behavior, 36*, 1-10.

Anderson, J. M. (2000). Gender, race, poverty, health and discourses of health reform in the context of globalization: A postcolonial feminist perspective in policy research. *Nursing Inquiry, 7*(4), 220-229.

Arrow, K. (1983). Some ordinalist-utilitarian notes of Rawls's theory of justice *Social choice and justice: collected papers of Kenneth J Arrow*. Cambridge, MA: Belknap Press of Harvard University Press.

Ashton, C. M., Haidet, P., Paterniti, D. A., Collins, T. C., Gordon, H. S., O'Malley, K., . . . Street, R. L., Jr. (2003). Racial and ethnic disparities in the use of health services: bias, preferences, or poor communication? *J Gen Intern Med, 18*(2), 146-152.

Auslander, W. F., Thompson, S. J., Dreitzer, D., & Santiago, J. V. (1997). Mothers' satisfaction with medical care: perceptions of racism, family stress, and medical outcomes in children with diabetes. *Health Soc Work, 22*(3), 190-199.

Bach, P. B., Pham, H. H., Schrag, D., Tate, R. C., & Hargraves, J. L. (2004). Primary care physicians who treat blacks and whites. *N Engl J Med, 351*(6), 575-584.

Baezconde-Garbanati, L., Portillo, C. J., & Garbanati, J. A. (1999.). Disparities in health indicators for Latinas in California. *Hispanic-Journal-of-Behavioral-Sciences, 21* (3), 302-329.

Betancourt, J. R., Green, A. R., Carrillo, J. E., & Ananeh-Firempong, O., 2nd. (2003). Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Rep, 118*(4), 293-302.

Bhaba, H. K. (1990). *Interrogating identity : the postcolonial prerogative*. Minneapolis: University of Minnesota Press.

Bird, S. T., & Bogart, L. M. (2001). Perceived race-based and socioeconomic status(SES)-based discrimination in interactions with health care providers. *Ethn Dis, 11*(3), 554-563.

Birt, R. E. (2002). *The quest for community and identity : critical essays in African social philosophy*. New York: Rowman & Littlefield.

Blanchard, J., & Lurie, N. (2004). R-E-S-P-E-C-T: patient reports of disrespect in the health care setting and its impact on care. *J Fam Pract, 53*(9), 721-730.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Cameron, A. C., & Trivedi, P. K. (1998). *Regression Analysis of Count Data*. Cambridge: Cambridge University Press.

Cardarelli, R., & Chiapa, A. L. (2007). Educating primary care clinicians about health disparities. *Osteopath Med Prim Care, 1*, 5.

Carlson, E. D., & Chamberlain, R. M. (2004). The Black-White perception gap and health disparities research. *Public Health Nurs, 21*(4), 372-379.

Chang, S. W., Kerlikowske, K., Napoles-Springer, A., Posner, S. F., Sickles, E. A., & Perez-Stable, E. J. (1996). Racial differences in timeliness of follow-up after abnormal screening mammography. *Cancer, 78*(7), 1395-1402.

Chang, W. C. (2002). The meaning and goals of equity in health. *J Epidemiol Community Health, 56*(7), 488-491.

Cheung, Y. B. (2002). Zero-inflated models for regression analysis of a count data: a study of growth and development. *Statistics in Medicine, 21*, 1481-1469.

Chin, M. H., Zhang, J. X., & Merrell, K. (1998). Diabetes in the African-American Medicare population. Morbidity, quality of care, and resource utilization. *Diabetes Care, 21*(7), 1090-1095.

Clancy, C. M., & Stryer, D. B. (2001). Racial and ethnic disparities and primary care experience. *Health Serv Res, 36*(6 Pt 1), 979-986.

Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans. A biopsychosocial model. *Am Psychol, 54*(10), 805-816.

Cooper-Patrick, L., Gallo, J. J., Gonzales, J. J., Vu, H. T., Powe, N. R., Nelson, C., & Ford, D. E. (1999). Race, gender, and partnership in the patient-physician relationship. *Jama, 282*(6), 583-589.

Cooper, L. A., Hill, M. N., & Powe, N. (2002). Designing and evaluating interventions to eliminate racial and ethnic disparities in health care. *Journal of General Internal Medicine, 17,* 477–486.

Cooper, L. A., Roter, D. L., Johnson, R. L., Ford, D. E., Steinwachs, D. M., & Powe, N. R. (2003). Patient-centered communication, ratings of care, and concordance of patient and physician race. *Ann Intern Med, 139*(11), 907-915.

Cooper, R., & David, R. (1986). The biological concept of race and its application to public health and epidemiology. *J Health Polit Policy Law, 11*(1), 97-116.

Cooper, R. S. (1981). Improved mortality among U.S. Blacks, 1968–1978: The role of antiracist struggle. *International Journal of Health Services 11*(4), 511-522.

Dirlick, A. (1999). How the grinch hijacked radicalism : further thoughts on the postcolonial. *Postcolonial Studies, 2*(3), 149-163.

Doescher, M. P., Saver, B. G., Franks, P., & Fiscella, K. (2000). Racial and ethnic disparities in perceptions of physician style and trust. *Arch Fam Med, 9*(10), 1156-1163.

Donaldson, M. S., & Vanselow, N. A. (1996). The nature of primary care. *J Fam Pract, 42*(2), 113-116.

Dovidio, J. F., Gaertner, S. L., Kawakami, K., & Hodson, G. (2002). Why can't we just get along? Interpersonal biases and interracial distrust. *Cultur Divers Ethnic Minor Psychol, 8*(2), 88-102.

Engel, R. J., & Schutt, R. K. (2005). *The Practice of Research in Social Work*. Thousand Oaks, California: Sage Publications.

Fiscella, K., Franks, P., & Clancy, C. M. (1998). Skepticism toward medical care and health care utilization. *Med Care, 36*(2), 180-189.

Fiscella, K., Franks, P., Doescher, M. P., & Saver, B. G. (2002). Disparities in health care by race, ethnicity, and language among the insured: findings from a national sample. *Med Care, 40*(1), 52-59.

Fisher, T. L., Burnet, D. L., Huang, E. S., Chin, M. H., & Cagney, K. A. (2007). Cultural leverage: interventions using culture to narrow racial disparities in health care. *Med Care Res Rev, 64*(5 Suppl), 243S-282S. doi: 64/5S/243S [pii]
10.1177/1077558707305414

Flocke, S. A., Miller, W. L., & Crabtree, B. F. (2002). Relationships between physician practice style, patient satisfaction, and attributes of primary care. *Journal of Family Practice, 51*(10), 835-840.

Foundation, K. F. (1999). Race, Ethnicity and Medical Care: A Survey of Public Perceptions and Experiences. Menlo Park, CA.

Fraser, N. (2003). *Redistribution or recognition?: A political-philosophical exchange*. London: Verso.

Gaskin, D. J., Arbelaez, J. J., Brown, J. R., Petras, H., Wagner, F. A., & Cooper, L. A. (2007). Examining racial and ethnic disparities in site of usual source of care. *J Natl Med Assoc, 99*(1), 22-30.

Gee, G. C. (2002). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *Am J Public Health, 92*(4), 615-623.

Green, R. (1976.). Health care and justice in contract theory perspective. In R. B. Veatch, R (Ed.), *Ethics and health policy*. Cambridge, MA: Ballinger.

Griffin, F. N. (1994). Perceptions of African American women regarding health care. *J Cult Divers, 1*(2), 32-35.

Guyll, M., Matthews, K. A., & Bromberger, J. T. (2001). Discrimination and unfair treatment: relationship to cardiovascular reactivity among African American and European American women. *Health Psychol, 20*(5), 315-325.

Hatcher, L. (1994). *A step-by-step approach to using the SAS(R) system for factor analysis and structural equation modeling*. Cary, NC: SAS Institute.

Health, O. f. M. (2004). Eliminate disparities in adult and child immunization rates: Office for Minority Health

Hosmer, D., & Lemeshow, S. (2000). *Applied Logistic Regression*. New York: John Wiley & Sons, Inc.

Hummer, R. A. (1996). Black-white differences in health and mortality:a review and conceptual model. *Sociological Quarterly, 37*(1), 105.

Hunt, K. A., Gaba, A., & Lavizzo-Mourey, R. (2005). Racial and ethnic disparities and perceptions of health care: does health plan type matter? *Health Serv Res, 40*(2), 551-576.

Johnson, R. L., Saha, S., Arbelaez, J. J., Beach, M. C., & Cooper, L. A. (2004). Racial and ethnic differences in patient perceptions of bias and cultural competence in health care. *J Gen Intern Med, 19*(2), 101-110.

Kandula, N. R., Lauderdale, D. S., & Baker, D. W. (2007). Differences in self-reported health among Asians, Latinos, and non-Hispanic whites: the role of language and nativity. *Ann Epidemiol, 17*(3), 191-198.

Kawachi, I., Daniels, N., & Robinson, D. E. (2005). Health disparities by race and class: why both matter. *Health Aff (Millwood), 24*(2), 343-352.

Kirby, J. B., Taliaferro, G., & Zuvekas, S. H. (2006). Explaining racial and ethnic disparities in health care. *Med Care, 44*(5 Suppl), I64-72.

Kirkham, S. R., & Anderson, J. M. (2002). Postcolonial nursing scholarship: from epistemology to method. *ANS Adv Nurs Sci, 25*(1), 1-17.

Kirkham, S. R., & Browne, A. J. (2006). Toward a critical theoretical interpretation of social justice discourses in nursing. *ANS Adv Nurs Sci, 29*(4), 324-339.

Klassen, A. C., Hall, A. G., Saksvig, B., Curbow, B., & Klassen, D. K. (2002). Relationship between patients' perceptions of disadvantage and discrimination and listing for kidney transplantation. *Am J Public Health, 92*(5), 811-817.

Krieger, N., Rowley, D. L., Herman, A. A., Avery, B., & Phillips, M. T. (1993). Racism, sexism, and social class: implications for studies of health, disease, and well-being. *Am J Prev Med, 9*(6 Suppl), 82-122.

Lambert, D. (1992). Zero-inflated Poisson regression, with an application to defects in manufacturing. *Technometrics, 34*(1-14).

Lillie-Blanton, M., Martinez, R. M., & Salganicoff, A. (2001). Site of medical care: do racial and ethnic differences persist? *Yale J Health Policy Law Ethics, 1*, 15-32.

Lillie-Blanton, M., Parsons, P. E., Gayle, H., & Dievler, A. (1996). Racial differences in health: not just black and white, but shades of gray. *Annu Rev Public Health, 17*, 411-448.

Long, E. (1993). Breast cancer in African-American women. Review of the literature. *Cancer Nurs, 16*(1), 1-24.

Long, J. S., & Freese, J. (2001). *Regression Models for Categorical Dependent Variables using Stata*. College Station, TX: Stata PressStata Press.Stata Press.

Lynam, M. J. (2005). Health as a socially mediated process: theoretical and practice imperatives emerging from research on health inequalities. *ANS Adv Nurs Sci, 28*(1), 25-37.

Manhapra, A., Canto, J. G., Barron, H. V., Malmgren, J. A., Taylor, H., Rogers, W. J., . . . Borzak, S. (2001). Underutilization of reperfusion therapy in eligible African Americans with acute myocardial infarction: Role of presentation and evaluation characteristics. *Am Heart J, 142*(4), 604-610.

Manor, O., Matthews, S., & Power, C. (2000). Dichotomous or categorical response? Analysing self-rated health and lifetime social class. *Int J Epidemiol, 29*(1), 149-157.

Meer, J., Miller, D. L., & Rosen, H. S. (2003). Exploring the health-wealth nexus. *Journal of Health Economics, 22*(5), 713-730.

Mohammed, S. A. (2006a). Moving beyond the "exotic": applying postcolonial theory in health research. *ANS Adv Nurs Sci, 29*(2), 98-109.

Mohammed, S. A. (2006b). Moving beyond the exotic : Applying postcolonial theory in health research. *Advances in Nursing Science, 29*(2), 98-109.

Morales, L. S., Elliott, M. N., Weech-Maldonado, R., Spritzer, K. L., & Hays, R. D. (2001). Differences in CAHPS adult survey reports and ratings by race and ethnicity: an analysis of the National CAHPS benchmarking data 1.0. *Health Serv Res, 36*(3), 595-617.

Mullins, C. D., Blatt, L., Gbarayor, C. M., Yang, H. W., & Baquet, C. (2005). Health disparities: a barrier to high-quality care. *Am J Health Syst Pharm, 62*(18), 1873-1882.

National Center for Health Statistics, & Prevention, C. f. D. C. a. (1999). Women's health data by state and US territory: Mortality 1994-1997. Hyattsville, MD: National Center for Health Statistics, Centers for Disease Control and Prevention.

Nunnaly, J. (1978). *Psychometric theory*. New York: McGraw-Hill.

O'Malley, C. D., Le, G. M., Glaser, S. L., Shema, S. J., & West, D. W. (2003). Socioeconomic status and breast carcinoma survival in four racial/ethnic groups: a population-based study. *Cancer, 97*(5), 1303-1311.

Pearlman, D. N., Rakowski, W., Ehrich, B., & Clark, M. A. (1996). Breast cancer screening practices among black, Hispanic, and white women: reassessing differences. *Am J Prev Med, 12*(5), 327-337.

Racine, L. (2003). Implementing a postcolonial feminist perspective in nursing research related to non-Western populations. *Nurs Inq, 10*(2), 91-102.

Reifsnider, E., Gallagher, M., & Forgione, B. (2005). Using ecological models in research on health disparities. *J Prof Nurs, 21*(4), 216-222.

Rice, T. (2001). Individual autonomy and state involvement in health care. *J Med Ethics, 27*(4), 240-244.

Roter, D. (2000). The medical visit context of treatment decision-making and the therapeutic relationship. *Health Expect, 3*(1), 17-25.

Safran, D. G., Taira, D. A., Rogers, W. H., Kosinski, M., Ware, J. E., & Tarlov, A. R. (1998). Linking primary care performance to outcomes of care. *J Fam Pract, 47*(3), 213-220.

Saha, S., Arbelaez, J. J., & Cooper, L. A. (2003). Patient-physician relationships and racial disparities in the quality of health care. *Am J Public Health, 93*(10), 1713-1719.

Saha, S., Komaromy, M., Koepsell, T. D., & Bindman, A. B. (1999). Patient-physician racial concordance and the perceived quality and use of health care. *Arch Intern Med, 159*(9), 997-1004.

Santos, J. R. A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales *Journal of Extension, 37*(2).

Schneider, E. C., Zaslavsky, A. M., & Epstein, A. M. (2002). Racial disparities in the quality of care for enrollees in medicare managed care. *Jama, 287*(10), 1288-1294.

Schnittker, J., & McLeod, J. D. (2005). The social psychology of health. *Annual Review of Sociology, 31*, 75-103.

Schoen, C., Simantov, E., Gross, R., Brammli, S., & Leiman, J. (2003). Disparities in women's health and health care experiences in the United States and Israel : findings from 1998 national women's health surveys. *Women-and-Health, 37* (1), 49-70.

Schulman, K. A., Berlin, J. A., Harless, W., Kerner, J. F., Sistrunk, S., Gersh, B. J., . . . Escarce, J. J. (1999). The effect of race and sex on physicians' recommendations for cardiac catheterization. *N Engl J Med, 340*(8), 618-626.

Shi, L. (1999). Experience of primary care by racial and ethnic groups in the United States. *Med Care, 37*(10), 1068-1077.

Shi, L., Green, L. H., & Kazakova, S. (2004). Primary care experience and racial disparities in self-reported health status. *J Am Board Fam Pract, 17*(6), 443-452.

Shi, L., Macinko, J., Starfield, B., Xu, J., Regan, J., Politzer, R., & Wulu, J. (2004). Primary care, infant mortality, and low birth weight in the states of the USA. *J Epidemiol Community Health, 58*(5), 374-380.

Shi, L., Starfield, B., Politzer, R., & Regan, J. (2002). Primary care, self-rated health, and reductions in social disparities in health. *Health Serv Res, 37*(3), 529-550.

Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2002). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington, DC: National Academy Press.

Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary care to health systems and health. *Milbank Q, 83*(3), 457-502.

Stevens, P. E. (1989). A critical social reconceptualization of environment in nursing: implications for methodology. *ANS Adv Nurs Sci, 11*(4), 56-68.

Stewart, M., Brown, J. B., Donner, A., McWhinney, I. R., Oates, J., Weston, W. W., & Jordan, J. (2000). The impact of patient-centered care on outcomes. *J Fam Pract, 49*(9), 796-804.

van Ryn, M., & Fu, S. S. (2003). Paved with good intentions: do public health and human service providers contribute to racial/ethnic disparities in health? *Am J Public Health, 93*(2), 248-255.

Vernon, S. W., Vogel, V. G., Halabi, S., Jackson, G. L., Lundy, R. O., & Peters, G. N. (1992). Breast cancer screening behaviors and attitudes in three racial/ethnic groups. *Cancer, 69*(1), 165-174.

Waidmann, T. A., & Rajan, S. (2000). Race and ethnic disparities in health care access and utilization: an examination of state variation. *Med Care Res Rev, 57 Suppl 1*, 55-84.

Weinick, R. M., Zuvekas, S. H., & Cohen, J. W. (2000). Racial and ethnic differences in access to and use of health care services, 1977 to 1996. *Med Care Res Rev, 57 Suppl 1*, 36-54.

Wilkinson, D. (2000). Rethinking the concept of minority Task of social scientists and practitioners. *Journal of Sociology and Social Welfare, 17*(1).

Williams, D. R., & Jackson, P. B. (2005). Social sources of racial disparities in health. *Social Sources, 24*(325-334).

Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: findings from community studies. *Am J Public Health, 93*(2), 200-208.

Williams, D. R., & Rucker, T. D. (2000). Understanding and addressing racial disparities in health care. *Health Care Financ Rev, 21*(4), 75-90.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health. *Journal of Health Psychology, 2*(3), 335-351.

Young, I. M. (1990). *Justice and the Politics of Difference*: Princeton University Press.

Zastowny, T. R., Roghmann, K. J., & Cafferata, G. L. (1989). Patient satisfaction and the use of health services. Explorations in causality. *Med Care, 27*(7), 705-723.

Zuvekas, S. H., & Taliaferro, G. S. (2003). Pathways to access: health insurance, the health care delivery system, and racial/ethnic disparities, 1996-1999. *Health Aff (Millwood), 22*(2), 139-153.

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- Council on Social Work Education's Annual Meeting at Portland, Oregon, October 2010 (poster)
- Society for Social Work and Research (SSWR) 14th Annual Research Conference at San Francisco, California, January 2010 (podium)
- 2008 Minnesota Department of Health Office of Minority and Multicultural Health's (OMMH) National Health Disparities Conference, Prior Lake, Minnesota, November 2008 (podium)

- 10th Annual Spring Symposium, Indiana University-Purdue University School of Social Work, Indianapolis, Indiana, April 20, 2006 (podium)
- Indiana Academy of Social Sciences Annual Meeting, Terre Haute, Indiana, October 21, 2005 (podium)
- Gendering Asia Network Conference, Kungalv, Sweden, May 19-21, 2005 (podium)
- 9th Annual Spring Symposium, Indiana University-Purdue University School of Social Work, Indianapolis, Indiana, April 20, 2005 (podium)
- 31st Annual Third World Conference, Chicago, Illinois, March 24-26, 2005

COURSES TAUGHT

- Human Behavior in Social Environment
- Research Methods
- History of Social Welfare Policy
- Community Development for Social Change
- Diversity Inequality/Dialogue Groups
- Senior Undergraduate Research

SERVICE ACTIVITIES

- Appointed member of the Institutional Review Board (IRB Committee)
- International Committee (Chair)
- Admissions Committee (Member)
- Foundation Review Committee (Chair)