

*Health Care Experiences
and Health Outcomes
of African-American Veterans*

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**Nathaniel M. Rickles, Pharm. D., Ph.D., BCPP^{1,5},
Silvia Dominguez, Ph.D.^{2,5}, Haywood Fennell Sr.³,
Loren Earl Roberts M.S.³, Joseph D. Warren, Ph.D.⁴,
and Hortensia Amaro, Ph.D.⁵**

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**TRI-AD
VETERAN'S
LEAGUE, INC.**

¹ School of Pharmacy, Northeastern University, ² Department of Sociology, Northeastern University,
³ Triad- Veterans, ⁴ Office of the President, ⁵ Institute on Urban Health Research

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Corresponding Author: Nathaniel Rickles, Pharm. D., Ph.D., BCPP¹, Northeastern University, School of Pharmacy, 206 Mugar Life Sciences Building, 360 Huntington Ave., Boston, MA 02115, Ph: (617) 373-7721, E-mail: n.rickles@neu.edu.

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EXECUTIVE SUMMARY

Health Care Experiences and Health Outcomes of African-American Veterans

Despite overall improvement in the health status and longevity of the general U.S. population over the last several decades, Black Americans are less healthy, receive poorer care, suffer from more chronic diseases and have a shorter life span than White Americans. As a group, African-Americans are economically disadvantaged and have little or no health insurance. These factors play an important role in explaining Black-White differences in health status and in the quality of health care they receive. Veterans of the armed forces, however, are one population of African-Americans that typically have health insurance coverage, obtained through the Veteran's Administration, VA. It is reasonable to expect, therefore, that African-American veterans have greater access to health care than their counterparts in the general population. Yet, health insurance coverage through the VA does not necessarily guarantee access to services and fair treatment by health care providers.

Prompted by concerns about the responsiveness of health care providers at the VA and their effect on their health status, the Tri-Ad Veterans, a Boston-based grassroots group of African-American veterans, asked the Institute on Urban Health Research at Northeastern University and the Boston Public Health Commission to look at the matter more closely. As a result, a pilot study, "Health Care Experiences and Health Status of African-American Veterans," was conducted during the spring and summer of 2006.

A sample of African-American veterans was recruited via community outreach in the Roxbury, Dorchester, and Mattapan areas from May to June 2006. All study participants were age 18 or older, had identified themselves as African-American, had proof of veteran status, were fluent in English, and had received health care services in the past year. The sample of 141 African-American veterans was mostly male and middle-aged. Less than a quarter of the sample had completed college and/or gone on to graduate school. Only a fifth of the sample was currently married and almost 60% of the sample lived alone. Only eleven respondents (8%) were unemployed and looking for work for more than one year. Three of these eleven had a certified service-related disability. There were 37 other individuals reporting having a certified service-related disability (yielding a total of 40 or 28.4% of the sample). A majority of respondents reported having served in the Army and not having seen active combat.

Veterans responded to 82 items related to the following: demographics, health care experiences, satisfaction with health care services, opinions about discrimination in health care services, the quality of health services, physical and mental health status, and experiences of discrimination in other aspects of life.

While the majority of participants reported their health status to be good or excellent, a sizeable minority did not. The latter reported a high prevalence of high blood pressure, low back pain, arthritis, and diabetes, as well as mental health problems including depression and post traumatic stress disorder, many of which seemed unrelated to the older age of the sample.

On average, study participants were moderately satisfied with their health care. Yet, veterans indicated their dissatisfaction in areas related to their confidence in the diagnosis given by their doctors, access to medical specialists, time doctors spend with patients, and getting medical care in a timely manner. About 46% of African-American veterans had confidence in their providers and about 30% said they felt rushed when with the doctor. Further, over half reported not agreeing with a statement that black veterans were treated with the same respect by doctors and nurses as white veterans. Also, approximately 78% of the respondents did not disagree with a statement that they recalled having an experience of discrimination where they received health care services, suggesting that around 20% of our sample felt there was some discrimination by their health care provider.

An important finding was that African-American veterans disagreed with the statement that their health care providers asked about their spiritual needs. Many respondents expressed concern about this issue to researchers during survey administration. Future research needs to explore ways for VA providers to integrate chaplain services with medical care so African-American patients feel their spiritual needs are being met holistically by the medical team.

About two-thirds of the sample did not use the VA as their sole provider. This suggests that a large percentage of African-American veterans are using services outside a health care system that is available to them by function of their past military service. The decision to use non-VA services may have to do with different health benefits from current employment and/or dissatisfaction with VA services. However, only about 10% of the sample indicated a lack of willingness to use the VA in the future. Future research should examine reasons why Black veterans use services outside the VA system.

Uncovered were significant relationships between perceived discrimination from health care providers and satisfaction with care, and between quality of care and physical functioning. Urgently needed are a comprehensive review and monitoring of policies and provider behaviors that may wittingly or unwittingly contribute to unequal treatment in health care or perceptions of such treatment. Efforts to educate administrators and service providers about health disparities, unconscious clinician bias and cultural competency, including the assessment of spiritual beliefs, especially how these relate to patients' illnesses, should be strengthened and made compulsory.

Health Care Experiences and Health Status of African-American Veterans

INTRODUCTION

Despite overall improvement in the health status and longevity of the general U.S. population over the last several decades, racial/ethnic disparities in health continue to persist and in some cases have increased (Institute of Medicine, 2003; Mills and Combs, 2002). Specifically, compared to White Americans, Black Americans are less healthy, receive poorer care, suffer from more chronic diseases and have a shorter life span (Spalter-Roth et al., 2005).

There is strong evidence that economic and social inequalities result in greater personal risk behaviors, more risky social and physical living environments (Borrell and Hatch, 2005), and policy (Kennedy, 2005) and provider biases (Spalter-Roth et al., 2005; Kawachi et al., 2005). As a group, African-Americans are economically disadvantaged and have little or no health insurance (Doty and Holmgren, 2006). In addition to having few economic resources for obtaining adequate health care, African-Americans may also have relatively little access to health education. Such inequalities play a significant role in explaining Black-White disparities in health status (LaVeist, 1992; Sampson, 2000) and in the quality of health care (Institute of Medicine, 2003). Perhaps what is less clear is how having health insurance and greater access to health care reduces these disparities and discrimination in health care.

Veterans of the armed forces are one population of African-Americans that typically has health insurance coverage (obtained through the Veteran's Administration, VA). It is reasonable to expect, therefore, that African-American veterans have a greater access to health care than their counterparts in the general population. Yet, health insurance coverage through the VA may not necessarily guarantee actual access to services and fair treatment by health care providers. Institutionalized inequalities in access and quality of health care documented in the general population may be mirrored in the military health care system (Borowsky and Cowper, 1999; Mayberry et al., 2000). There is evidence that there are some race/ethnic-based differences in procedures and services provided to patients seen at the VA (Ferguson et al., 1998; Petersen et al., 2002; Goldstein et al., 2003). For example, Goldstein and associates (2003) found that angiographies and ECGs were performed significantly less in Black than White stroke patients. It is important to note that veterans may not use the VA system for a variety of reasons, e.g., they may have better insurance through employment or they may not be located near a VA system.

Prompted by concerns about the responsiveness of health

care providers at the VA and their effect on their health status, the Tri-Ad Veterans, a Boston-based grassroots group of African-American veterans, contacted the Institute on Urban Health Research at Northeastern University and the Boston Public Health Commission in order to request a study to look at the matter more closely. A study, "Health Care Experiences and Health Status of African-American Veterans," was conducted during the spring and summer of 2006. The study focused on describing the following among a sample of African-American veterans in Boston: (1) their health status, (2) their perceptions regarding the quality of care they receive, (3) their perceived discrimination from health care providers, and (4) the relationships between their perceived discrimination and their experiences in health care and their health status.

To best understand the bases of the study, we present a targeted literature review highlighting key differences in indicators of health status among African-American veterans, dual utilization of health care services in the veteran population, and economic and social factors that contribute to racial discrimination and subsequent disparity in health care services. The literature review is followed by sections on the methodology of the study, results and a discussion of findings, and conclusions/recommendations.

Health Disparities in the General Population

Several indicators demonstrate disparities in the health of Americans based on their race. First, although average life expectancy among Americans has increased over the years (American Sociological Association, 2003), African-Americans continue to live an average of 7 fewer years than White Americans (National Center for Health Statistics, 1994) and experience a higher health-related death rate (Anderson and Smith, 2005). Second, African-Americans have disproportionately higher rates of a host of health conditions compared to White Americans. These include higher rates of cancer, heart disease, HIV and AIDS, diabetes and infectious diseases (Institute of Medicine, 2003). Not surprisingly, African-Americans also rate their health status lower than that of Whites (U.S. Department of Health and Human Services, 2004) and have higher rates of disability (Institute of Medicine, 2003; U.S. Department of Health and Human Services, 2006). Overall, more African-Americans than White Americans suffer from various health conditions and die prematurely (U.S. Department of Health and Human Services, 2006). African-American patients are more likely than White patients with identical psychiatric symptoms to be given more

severe psychiatric diagnoses (Loring and Powell, 1988; Strakowski et al., 1993). Lastly, there are disparities in access to health care and in the experiences that patients report having in the health care system (Commonwealth Fund, 1999).

Similarly, access to quality health care seems to differ significantly by race even when patients have health insurance. Studies consistently indicate that compared to White Americans, African-Americans are less likely to have a regular source of care, to receive preventive health care, to be satisfied with the health care they receive, and to receive advanced treatments when these are needed (Collins et al., 2002).

Disparities in health status and access to care in Boston are not dissimilar to the patterns reported above. A recent report by the Boston Public Health Commission (2005) highlights the vast disparities in health status and health care access between Whites and African-Americans and other minority populations.

Health Disparities among Veterans

Some of the racial disparities in both health status and access to quality care noted above are mirrored among veterans. There appears to be no known information on the life expectancy of African-American veterans compared to White veterans. There is mixed data regarding mortality rates. For example, Selim and associates (2004) demonstrated that there were no differences in mortality rates in a sample of African-American and White veterans receiving outpatient VA care. Jha and colleagues (2001) found significantly lower rates of mortality among hospitalized African-Americans than among hospitalized White veterans. Kamalesh et al. (2005) also found that mortality from post myocardial infarctions was significantly lower in Black veterans with diabetes than White veterans with diabetes. Dominitz et al. (2002) found higher rates of mortality among Black veterans with squamous cell carcinoma than their White counterparts but no racial differences in mortality from adenocarcinoma. McGinnis et al. (2003) found higher death rates from HIV/AIDS among African-American veterans than among White veterans. There are several reports indicating greater morbidity and disability rates among African-American veterans compared to White veterans. For example, compared to their White counterparts, African-American veterans have higher rates of hospitalizations (McGinnis et al., 2003; Deswal et al., 2006), greater severity of stroke at time of hospital admission (Jones et al., 2000), greater complications post knee arthroplasty (Ibrahim et al., 2005), greater grafter failure post kidney transplantation (Chakkerla et al., 2005), and poorer blood pressure control (Bosworth et al., 2006). Studies also report disproportionately higher rates of diabetes, high blood pressure, impaired movement and poor or fair health, as well as lower mental health functioning among African-American veterans compared to White veterans (Horner et al., 1991; Villa et al., 2003).

Despite these negative morbidity findings, Villa and colleagues (2003) did find that African-American veterans self reported higher levels of physical functioning than their White counterparts.

The data on access and quality of care are mixed with regards to the presence of racial disparities among veterans. For example, compared to White veterans, African-American veterans are less likely to receive certain needed medical procedures, such as diabetes treatment and monitoring (Heisler et al., 2003), knee arthroplasty (Jones et al., 2005), heart procedures (Ibrahim et al., 2005), and cardiac endarterectomy for treatment of carotid stenosis resulting from a stroke or transient ischemic attack (Oddone et al., 1993). Goldstein et al. (2003) noted no racial differences in the utilization of a variety of stroke-related procedures and services with exception of African-American veterans receiving significantly fewer cerebral angiographies and 24-hour ECGs. Deswal et al. (2006) found no significant racial differences in the quality of outpatient care of heart failure.

With regard to prescribed medications, fewer disparities seem to exist based on studies conducted to date. One study reported that African-American veterans were less likely than White veterans to receive thrombolytic therapy upon arrival for acute myocardial infarction (MI) (Petersen et al., 2002). Yet, research has also demonstrated that African-American patients in the VA are equally likely to receive beta-blocker therapy for acute MI, and somewhat more likely to receive angiotensin converting enzyme (ACE) inhibitor therapy at discharge (Petersen et al., 2002). Lipid-levels and receipt of lipid lowering therapy were found to be equal between White and African-American patients in the VA (Woodard et al., 2004). It was suggested that the equal access to pharmacy services may account for the lack of disparity. However, Safford et al. (2003) found that African-Americans were less likely to receive lipid-lowering therapy. In a study examining whether disparities existed in the use of aspirin therapy and smoking cessation therapy for the secondary prevention of coronary artery disease, African-American and White patients were equally likely to receive both interventions (Ambriz et al., 2004). In a subset of patients with hypercholesterolemia and a prior stroke, African-American patients were less likely to receive aspirin therapy (Ambriz et al., 2004). In research with female veterans with documented low bone mass, African-Americans were less likely than Whites to be prescribed calcium supplements and anti-resorptive medications (Wei et al., 2003). African-Americans also scored lower in satisfaction with their care provider (Harada et al., 2002).

Discrimination in VA Care

The Institute of Medicine's report "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care" consistently demonstrated a decrease in the availability of health care procedures and treatment for racial and ethnic minorities

and lower quality of service (Institute of Medicine, 2003). This was true despite insurance status, income, age, and severity of medical conditions. Bias, discrimination, and racism at the levels of the health care system, health care provider, and the provider-patient interaction are increasingly being examined as factors that influence health status. Though disparities have been examined, there is a limited amount of research regarding discrimination, health care, and health status related to African-American veterans in or outside the VA health system.

Discrimination may be inferred (Kreiger, 1999) indirectly from studies that examine whether known risk factors such as socioeconomic status, severity of illness, and insurance status explain differences in health status or receipt of care between racial groups served by the VA health system. The following are examples of such studies done in the VA health system. Whittle et al. (1993) suggested that clinical or social bias may have been a factor in their finding that Whites were more likely than Blacks to receive invasive cardiac procedures. Other researchers reported similar findings (Sedlis et al., 1997). Similarly, research with stroke patients in the VA health system demonstrated that clinician referral bias was an important explanation of racial variation even after controlling for known risk factors such as socioeconomic status and access to care (Oddone et al., 1993). Blow et al. (2004) suggested that clinician factors were a likely factor in accounting for ethnic disparities in diagnostic patterns of psychosis among veterans.

Studies are lacking that directly measure discrimination among veterans at the individual level. Kressin et al. (2004) conducted an examination of whether patients' beliefs, such as evaluations of physicians' degree of respect and caring, their trust in their physicians, and quality of cardiac care in the VA, were associated with racial disparities in cardiac catheterization rates. They found that Black patients were less likely to receive cardiac catheterization than Whites and were more likely to report experiences of racial and social class discrimination than Whites.

Another aspect of racism for veterans relates to their military experience. The military experience for veterans of color is unique. The stress of wartime service can be particularly exacerbated by the isolation and stress of discrimination and racism which contribute to post traumatic stress disorder (PTSD) in veteran populations (Loo, 1994; Loo et al., 2001; Johnson, 1994; Ruef et al., 2000). In particular, it has been found that African-American veterans experience a greater rate of PTSD than White veterans (Allen, 1986). Jones et al. (2000) discussed the effectiveness of incorporating support and coping strategies for dealing with racism into group therapy programs for African-American veterans. It may be important to consider accounting for this unique experience of discrimination as it relates to the receipt of health services in the VA and, ultimately, to health status. In addition, when psychiatrists treat African-Americans for PTSD they are much less

likely to attribute the PTSD to combat than when treating PTSD in Whites (Murdoch et al., 2003). This is particularly damaging for African-American veterans because having PTSD that is not service-connected results in the denial of priority services at the VA (Murdoch et al., 2003).

Dual Use of VA and Non-VA Services

One of the concerns regarding discrimination in VA health care is that it may be pushing veterans of color to use services outside of the VA health system or, worse, may dissuade them from getting any health care at all. In a study of 577 veterans who reported VA primary care visits, 28% also reported non-VA primary care visits (Borowsky and Cowper, 1999). While the investigators did not examine race, veterans who were not satisfied with VA care and veterans who lived relatively close to a VA center (usually in urban areas) were significantly more likely to be dual users. The odds of dual use were reduced for those without other insurance and with less education.

A 1992 study using data from the National Survey of Veterans examined the relationship between race/ethnicity and unmet health care needs for ambulatory care users of VA and non-VA facilities (Washington et al., 2002). The researchers demonstrated that Black and Hispanic veterans were most likely to report any VA use. American Indian/Eskimo, Hispanic, and Black veterans were 4.4, 2.5, and 1.9 times more likely, respectively, to report not being able to get needed care compared to White veterans. However, after these researchers adjusted their analyses for VA ambulatory care use, they found less disparity between American Indian/Eskimo or Hispanic veterans and White veterans and no disparities between Black and White veterans.

A similar investigation examined woman veterans' reports of dual use of VA and non-VA providers based upon the VA health care provider's gender, provision of routine gynecological care by the VA provider, use of VA women's clinic, and overall satisfaction with VA care (Bean-Mayberry et al., 2004). The study demonstrated that provision of routine gynecological care by VA providers and use of VA women's clinics was associated with a significantly lower likelihood of dual use. On the other hand, dissatisfaction with care and higher income were significantly associated with an increased likelihood of dual use. Thus, there appear to be two different reasons for using health care services outside the VA: having another presumably better health care insurance plan and dissatisfaction with VA services.

Causes of Health Disparities

There are a number of factors which alone or in combination are responsible for the levels of inequality in health status affecting racial and ethnic minorities. Beyond socio-economic and environmental factors – ethnic and racial minorities tend to live in disadvantaged areas with high incidences of environmental pollutants like lead paint which harm human

development (Jacobs et al., 2002), there are other barriers to access and quality of care different groups receive.

There may be several reasons for disparities in **access** to health care for veterans, such as (a) discontinued care which means fewer doctor visits which leads to poorer outcomes and emergency room visits (Gary et al., 2004); (b) lack of financial resources which disproportionately affects minorities (Geronimus, 2000); (c) structural barriers including transportation issues and inability to schedule appointment times during convenient hours; (d) scarcity of providers in low-income areas (Lillie-Blanton et al., 2001); (e) literacy issues which make it hard to understand doctor's orders and medication information; and (f) lack of diversity and cultural awareness in the medical workforce (Chen et al., 2005).

Possible reasons for the disparities in **quality** of health care include (a) communication problems between the health care provider and the patient that can lead to incorrect diagnosis or improper usage of medications and (b) provider discrimination (Stewart, 1995; Institute of Medicine (2003)). Provider discrimination occurs when a provider of care treats people of different groups according to stereotypes or differently than other patients (Dedier et al., 1999).

The literature reviewed provides the underpinnings for the relationships between aspects of health care and health outcomes we set out to explore in this study of African-American veterans in the Boston area. The literature review points to the need to explore three key research questions: (1) what are African-American veterans' perceptions of the health care services they receive, discrimination in health care and the status of their own physical and mental health?, (2) what are the relationships between use and/or non-use of VA services and patient satisfaction, quality of care, health care discrimination, and health status?, and (3) what factors, including perceived discrimination, predict satisfaction with health care, quality of care, and physical and mental health status among African-American veterans?

METHODS

Study Design

The study employed a cross-sectional design with a sample of African-American veterans recruited via community outreach. We utilized convenience sampling methods to obtain completed surveys during twelve recruitment sessions at six different locations throughout the Roxbury, Dorchester, and Mattapan area from May to June 2006. Outreach was conducted by Tri-Ad Veterans, a grassroots organization of African-American veterans. Criteria for participation included: age 18 or older, self identified as African-American, having proof of veteran status, English fluency, and having received health care services in the past year. The study was approved

by the Northeastern University Institutional Review Board and funded by the Boston Public Health Commission and Institute on Urban Health Research at Northeastern University.

Study Procedures

The study was advertised on multiple occasions through a local television station (weekly program on BNN, "Speaking About"), a local radio station (W.I.L.D., FM and WRBB), and a local newspaper (Bay State Banner). Flyers with recruitment sessions were posted at the different locations where veterans were likely to congregate such as at the American Legion Posts. At least one Northeastern University (NU) trained researcher and one representative of the Tri-Ad Veterans group were present at each of the recruitment sessions. The Tri-Ad Veterans representative assisted in identifying potential respondents, handing out survey materials, verifying the veteran status of the respondents, distributing and collecting survey materials, and documenting the distribution of the \$20 research incentives. The Northeastern University researcher assisted in obtaining informed consents from subjects, distributing and collecting surveys and consent forms, and documenting the distribution of the \$20 research incentives.

At each recruitment session, the NU researcher and community representative provided potential respondents with a consent form and survey. The NU researcher explained the study and briefly reviewed key points in the consent form. Respondents were given instructions to complete and sign the consent form if they agreed to the study conditions and then completed the survey and returned it to the researcher. The survey took respondents on average 20-25 minutes to complete.

Survey Instrument

The survey was developed by NU researchers in consultation with Tri-Ad Veterans and tested for face and content validity among a small group of veterans. It was comprised of 82 items related to the following: demographics, health care experiences, satisfaction with health care services, perception of discrimination in health care services, perception of the quality of health services, physical and mental health status, and experiences of discrimination in other aspects of life. The survey used a variety of scales and different question formats including close-ended and open-ended items.

The first section (items 1-10) involved questions about the respondent's age, gender, ethnicity, educational level, marital status, if respondent lives alone and employment status. These items were asked since they are often associated with changes in physical and mental health status and because of the possibility that such factors had to be controlled for when looking at relationships between perceived discrimination and health status. There were four items in this section about the respondent's military service: (1) the branch of the military served, (2) participation or not in active combat, (3) if respon-

dent had a service-connected disability, and (4) if the respondent had been certified for this disability and what the service rating was. The latter two items were asked as possible control variables for the effects of service-connected disability on health status.

The second section (items 11-21) asked respondents about their access to and overall satisfaction with health services. Items on access to health care services asked if the respondent had someone to take them to the doctor, if they had used health services in the past three years, if they had been seen by a provider (VA, non-VA, etc.) in the past 12 months, if they planned to use the VA in the future, and if they had any form of health and prescription insurance outside of VA coverage. The item asking about the receipt of services from a VA and/or non-VA provider in the past 12 months served as a key study variable in the bivariate and multivariate analyses. This variable was subsequently dichotomized into two groups based on significant differences uncovered in the data analyses: those who received care from a combination of VA and non-VA providers and those who received care from either VA-only providers or non-VA only providers. Most of these items were based on the Veterans SF-36 questionnaire (Kazis et al., 2004b). Another item asked respondents to indicate if they had ever decided not to disclose their veteran status in a non-VA setting and why (a separate open-ended follow-up item). This latter item aimed to identify the extent that the veteran label affected the veteran's comfort in using non-VA services. Open-ended questions in this section asked respondents why they were not currently using VA services and/or not planning to go to a VA facility in the future. Respondents were asked to rate their satisfaction with the health care services they received from their provider and to rate the quality of those services. Several items in the next section of the survey focused on specific aspects of the health services respondents had received.

The third section (items 22-39) directly utilized items from the short-form of the Patient Satisfaction Questionnaire (PSQ)-III developed by the Rand Corporation (Marshall and Hays, 1994). This short form, known as PSQ-18, contains 18 items tapping each of the seven dimensions of satisfaction with medical care measured by the PSQ-III: general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor, and accessibility and convenience. Respondents utilized a Likert scale ranging from strongly agree (1) to strongly disagree (5). Since several items were positively stated, these items were recoded during data analysis. Thus, the higher the PSQ-18 score, the more satisfied respondents were with their health care services. The PSQ-18 subscale scores are substantially correlated with their counterparts in the larger, 50-item PSQ-III and possess adequate internal consistency and reliability (Marshall and Hays, 1994). Moreover, both the magnitude of the correlation coefficients and the overall pattern of correlations among PSQ-18

subscales are highly similar to those observed for the PSQ-III. The Rand Corporation suggests the use of the PSQ-18 in situations where the need for brevity precludes administration of the full-length PSQ-III. To spare our respondents the burden of a long survey, we chose to utilize this short version of the PSQ-III. The PSQ-18 was shown to have excellent reliability in this sample (Cronbach's $\alpha = 0.937$).

The fourth section (items 40-44, 49-57, 59) included several questions about the respondent's quality of medical care. Respondents used a Likert scale ranging from strongly agree (5) to strongly disagree (1) where a higher score reflected better quality of care. These questions came from previously published items. Items 40-44 were taken from the Evaluation of VA Care scale reported by Kressin and colleagues (2002). Other items, 49-57 and 59, were adapted from those used in the 2001 Commonwealth Fund's Minority Health Survey (Collins et al., 2002). The reliability analyses indicated this quality of care index to have excellent reliability (Cronbach's $\alpha = 0.931$).

The fifth section, (items 45-48 & 58) asked close-ended and open-ended items about perceived discrimination in health care. These items were adapted from the Perceptions of Racism Scale (Green, 1995). We developed our perceived health care discrimination measures using three of these items: items 45, 47, and 58. We selected these three items since items 45 and 47 focused specifically on racial discrimination among physicians and nurses, and item 58 was a global discrimination measure about whether respondents personally experienced discrimination from their providers. The reliability analysis showed this three-item perceived health care discrimination index to have good reliability (Cronbach's $\alpha = 0.794$).

A high score on this three-item perceived discrimination index is interpreted as reflecting less discrimination and a low score as indicating more perceived discrimination. Items 45, 47, and 58 were combined into one measure of health care discrimination for the primary study analyses, but additional analyses were conducted to see if there were significant differences between a 3-item and 1-item health care discrimination measure. Since items 46 and 48 asked about perceived gender discrimination of providers, these were not included in the health care discrimination measures. Many respondents commented that they were not able to make those assessments since they were male and were unaware of how providers treated women.

The sixth section (items 61-71) included items from both the SF-12 version 2 survey and a larger Veterans SF-36 Survey that assessed physical and mental status over different periods of time (Ware et al., 2005; Kazis et al., 2004b). The SF-12 version 2 made a few modifications from the version 1 published in 1996 (Ware et al., 1996). These modifications included changes in item wording, instructions, response categories, and format recommended by the developers of SF-36.

The Veterans SF-36 Survey was an extension of the Medical Outcomes Study (MOS) and assessed health-related quality of life but with a specific focus on health issues affecting the veteran population, in particular, functional status of the respondents and their general well-being.

Items 61-66 were taken directly from the SF-12 version 2 (Ware et al., 2005). Item 67 was fairly close to the item in SF-12 version 2 with the minor exception that the response choice of “a good bit of the time” was omitted in the SF-12 version 2 but retained in the current survey. Since this response choice was not chosen by many respondents, we combined “a good bit of the time” with “most of the time” response choices. This small change enabled us to use the SF-12 version 2 scoring algorithms. The Cronbach’s alpha for the physical component summary and the mental component summary were 0.89 and 0.86 for the SF-12 version 2 (Ware et al., 2005). Items 69-71 were taken directly from the Veterans SF-36 Survey. Item 68 was a new item that was added in the present survey to control for the possibility that the responses to the rest of the survey may have been affected by recent life changes. Higher physical and mental component scores reflected individuals with higher physical and mental functioning/status.

The seventh and final section (items 72-82) was developed from nine items used by Krieger and colleagues (2005). Questions 72 and 73 specifically were developed from an Experience of Discrimination (EOD) tool developed by Krieger and colleagues (Krieger, 1990; Krieger and Sidney, 1996). These latter items asked about the frequency of lifetime experiences of unfair treatment and racial or gender discrimination. Using Krieger’s scoring approach (Krieger et al., 2005) for the situation version of the EOD, we added the number of situations in which a participant reported experiencing racial discrimination. These authors reported that the EOD situation scale’s reliability was high, a Cronbach’s alpha of 0.88, and a test-retest reliability correlation of 0.89. Thus, it appears that this specific measure of discrimination is fairly reliable and valid. A higher number on this measure reflected greater experiences of lifetime discrimination.

Data Analysis

Data analysis was conducted using SPSS 14.0. We conducted descriptive statistics (means, standard deviations, and frequencies) on demographic variables: age, gender race ethnicity, educational background, marital status, lived alone, was looking for employment, was working, branch of military served, whether veteran saw combat, and had a certified service-related disability. Descriptive statistics were collected for health care access and other related variables: used health care within the last 3 years, if seen by a VA and/or non-VA provider, indicated future use of VA health care system, had a form of private or government health insurance, had help to go to the doctor if ill, overall satisfaction with health care

Table 1: Demographic Sample Profile (n=141)

Characteristics	n(%)
<i>Mean Age (SD)</i>	56.7(10.8)
Gender	
Male	131(92.9)
Female	9(6.4)
Missing	1(0.7)
Race/Ethnicity	
Black/African-American	141(100.0)
Black/African-American and Other	13(9.2)
Educational background	
High School or Less	46(32.7)
Some College	63(44.7)
College Graduate/Grad School	32(22.7)
Marital status	
Married	30(21.3)
Never Married	32(22.7)
Divorced/Separated/Widowed	79(56)
Live alone	
Yes	82(58.2)
No	56(39.7)
Missing	3(2.1)
Looking for employment	
Yes	25(17.1)
No	114(80.9)
Missing	2(1.4)
Working	
Yes	53(37.6)
No	87(61.7)
Missing	1(0.7)
Branch of military served	
Army	75(53.2)
Marines	15(10.6)
Navy	29(20.6)
Air Force	19(13.5)
Other	2(1.4)
Missing	1(0.7)
Saw active combat	
Yes	44(31.2)
No	96(68.1)
Missing	1(0.7)
Certified service-related disability	
Yes	40(28.4)
No	100(70.9)
Missing	1(0.7)
Mean Certified Disability Rating% (SD)	10.5(22.6)

provider, and overall perceived quality of health care from provider. Descriptive statistics were also provided for the following outcome measures: patient satisfaction, perceived quality of care, perceived health care discrimination, physical and mental health status. Independent sample t-tests were performed to compare between two groups of users, non-users, and dual users of the VA. Analysis of Variance (ANOVA) was performed when comparing among all three groups of users of VA and/or non-VA providers. Stepwise hierarchical regressions were conducted using those study variables for which there were significant correlations between background variables and study outcomes. These regressions were conducted to identify independent predictors of perceived quality of care, patient satisfaction, and physical and mental health status even after controlling for age, educational level, working or not, had certified disability or not, had help to go to the doctor if ill, use of VA or non-VA only providers, lifetime discrimination, and perceived health care discrimination. For all significance testing, a p-value of greater than or equal to 0.05 was set as the a priori level to achieve statistical significance. Reliability of scales and indices was assessed using the Cronbach alpha.

Responses to the open-ended questions were recorded and indexed. These responses ranged from a couple of words to a couple of sentences and they provided us with the veteran's own words in describing utilization of health care services, access to health care services and status of their own health.

RESULTS

Sample Profile

The demographic characteristics of the study participants are described in Table 1. Participants were largely male and, on average, middle-age. All self identified as Black/African-American and close to 10% also identified as part of another racial/ethnic group. Less than a quarter of the sample had completed college and/or gone on to graduate school. Approximately one fifth were currently married and almost 60% of the sample lived alone. About 60% of the sample was not working. Twenty-five respondents (17%) reported looking for work. There were 37 other individuals reporting having a certified service-related disability (yielding a total of 40 or 28.4% of the sample). A majority of respondents reported having served in the Army and not having seen active combat.

Table 2 shows data related to the nature and extent of the sample population's access to health care. With regard to where participants received health care in the last three years and the last 12 months, the sample was almost evenly divided into those who obtained care in the VA only, those who obtained care from non-VA providers only and those who received care from both VA and non-VA providers. With regard

Table 2: Health Care Access & Related Variables (n=141)

Characteristics	n(%)
Used health care within last 3 years	
Yes, VA only	46(32.6)
Yes, non-VA only	39(27.7)
Yes, VA and non-VA	48(34.0)
No	7(5.0)
Missing	1(0.7)
During the past 12 months, been seen by	
VA providers only	51(36.2)
Non-VA providers only	49(34.8)
VA and non-VA providers	41(29.1)
Missing	0 (0)
Future use of VA health care system	
Yes, as a primary source of care	75(53.2)
Yes, only as back up to non-VA care	44(31.2)
Yes, for prescriptions only	5(3.5)
No	16(11.3)
Missing	1(0.7)
Other form of health insurance (not including VA coverage)	
Yes, private health insurance	49(34.8)
Yes, through government program	30(21.3)
No health insurance	59(41.8)
Missing	3(2.1)
Any form of prescription insurance (not including VA coverage or TRICARE)	
Yes, private prescription insurance	37(26.2)
Yes, through government programs	29(20.6)
No prescription medication insurance	73(51.8)
Missing	2(1.4)
Help to go to doctor if ill	
Yes	115(81.6)
No	24(17.0)
Missing	2(1.4)
Overall satisfaction with health care provider	
Extremely satisfied	37(26.2)
Quite a bit satisfied	38(27.0)
Moderately satisfied	44(31.2)
A little bit satisfied	16(11.3)
Not at all satisfied	5(3.5)
Missing	1(0.7)
Overall quality of health care from provider	
Excellent	30(21.3)
Good	64(45.4)
Average	34(24.1)
Below average	9(6.4)
Poor	3(2.1)
Missing	1(0.7)

Table 3: PSQ-18 Items on Patient Satisfaction with Health Care (n=118)

Perception of Discrimination	M* n(%)	Strongly Agree (5) n(%)	Agree (4) n(%)	Neutral (3) n(%)	Disagree (2) n(%)	Strongly Disagree (1) n(%)	Mean (SD)
Doctors are good about explaining the reason for medical tests.	2(1.7)	24(20.3)	62(52.5)	16(13.6)	13(11.0)	1(0.85)	3.82(0.92)
I think my doctor's office has everything needed to provide complete medical care.	2(1.7)	19(16.1)	66(55.9)	20(16.9)	11(9.32)	0(0.0)	3.80(0.83)
The medical care I have been receiving is just about perfect.	2(1.7)	12(10.2)	56(47.4)	30(25.4)	16(13.6)	2(1.7)	3.52(0.92)
Sometimes doctors make me wonder if their diagnosis is correct.	2(1.7)	9(7.63)	46(39.0)	33(28.0)	21(17.8)	7(5.93)	2.75(1.04)
I feel confident that I can get the medical care I need without being set back financially.	3(2.54)	17(14.4)	61(51.7)	18(15.2)	10(8.50)	9(7.63)	3.58(1.10)
When I go for medical care, they are careful to check everything when treating and examining me.	2(1.7)	17(14.4)	66(55.9)	18(15.2)	17(14.4)	0(0.0)	3.70(0.89)
I have to pay for more of my medical care than I can afford.	0(0.0)	10(8.47)	23(19.5)	16(13.6)	52(44.1)	16(13.6)	3.43(1.48)
I have easy access to the medical specialists I need.	0(0.0)	13(11.0)	57(48.3)	23(19.5)	18(15.2)	7(5.93)	3.43(1.07)
Where I get medical care, people have to wait too long for emergency treatment.	0(0.0)	11(9.32)	24(20.3)	34(28.8)	42(35.6)	7(5.93)	3.08(1.08)
Doctors act too businesslike and impersonal toward me.	2(1.7)	5(4.24)	19(16.1)	35(29.7)	46(39.0)	11(9.32)	3.34(1.00)
My doctors treat me in a very friendly and courteous manner.	4(3.39)	24(20.3)	67(56.8)	14(11.9)	7(5.93)	2(1.7)	3.91(0.858)
Those who provide my medical care sometimes hurry too much when they treat me.	0(0.0)	7(5.93)	29(24.6)	22(18.6)	52(44.1)	8(6.78)	3.21(1.08)
Doctors sometimes ignore what I tell them.	2(1.7)	8(6.78)	18(15.2)	22(18.6)	54(45.8)	14(11.9)	3.41(1.10)
I have some doubts about the ability of the doctors who treat me.	0(0.0)	5(4.24)	15(12.7)	27(22.9)	62(52.5)	9(7.63)	3.47(0.958)
Doctors usually spend plenty of time with me.	1(0.847)	8(6.78)	53(44.9)	27(22.9)	22(18.6)	7(5.93)	3.28(1.04)
I find it hard to get an appointment for medical care right away.	0(0.0)	14(11.9)	29(24.6)	19(16.1)	49(41.5)	7(5.93)	3.05(1.18)
I am dissatisfied with some things about the medical care I receive.	2(1.7)	8(6.78)	33(28.0)	25(21.2)	45(38.1)	5(4.24)	3.05(1.06)
I am able to get the medical care whenever I need it.	1(0.847)	16(13.6)	53(44.9)	22(18.6)	21(17.8)	5(4.24)	3.46(1.07)
PSQ-18 Scale (18-90)	0(0.0)						60.6 (13.0)

*M column= frequency and raw % of missing

to considering the VA as a place to get health care in the future, about half of the sample indicated willingness to go to the VA as a primary source of care and almost a third indicated they were only willing to use the VA as a back-up to non-VA care. A little more than 10% of the sample indicated they would not use the VA in the future. More than half of the sample had some additional type of health insurance other than with the VA but did not have additional prescription insurance outside of that with the VA or TRICARE. Approximately 79% of those who did not go to the VA in the past 12 months had either private or government insurance (outside of VA coverage or TRICARE). Most respondents reported having help to go to the doctor if they were ill. Finally, over half of the respondents were “extremely”, “quite” or “moderately” satisfied with their health care provider and over two-thirds believed they received “good” or “excellent” care from their health care provider.

Perceptions of health care and discrimination in health care, and physical and mental health status among African-American veterans

Patient satisfaction. Table 3 presents descriptive results of all responses to the 18 items of the Patient Satisfaction Questionnaire. A majority of respondents “agreed” or “strongly agreed” with many statements indicating satisfaction in many aspects of health care. For example, most agreed that their doctors had some good communication skills as evidenced by a majority noting that their doctors were good about explaining reasons for medical tests, being friendly and courteous, and not ignoring them. About half the respondents felt the doctors spent plenty of time with them and disagreed that their providers were in a hurry when treating them. Most respondents felt their doctor’s office had everything needed to provide complete medical care, and the medical care they had received was near perfect. Yet a majority of respondents felt that doctors made them wonder if their diagnosis was correct. Despite these concerns about accurate diagnoses, respondents were more likely to disagree than agree with the statement about having doubts about their providers’ ability to treat them and more likely to agree than disagree that their providers are thorough in treating and examining them.

“A Black vet asked for his blood to be drawn by butterfly needle and was denied...a white asked for the same thing and a butterfly needle was used.”

Most respondents agreed that they can get medical care they need without financial setbacks and disagree that they have to pay for more of their medical care than they can

afford. In terms of access to care, a majority of respondents felt they had easy access to medical specialists and were able to get medical care when they needed it. About half of the respondents agreed that people have to wait too long for emergency care and the other half disagreed. Somewhat more respondents indicated disagreement than agreement that it is hard to get an appointment for medical care right away.

“After my back surgery some of my symptoms were still there. The surgeon told me to learn to live with it.”

It is important to note that one third or more of respondents agreed with statements concerning having to pay for more of their medical care than they can afford, having to wait too long for emergency treatment, doctors acting too businesslike and impersonal, providers being rushed, doctors ignoring what they say, and finding it difficult to get an appointment right away.

Table 4 shows the means of the seven subscales of the Patient Satisfaction Questionnaire (PSQ-18). The means of the different subscales were fairly similar ranging from 3.25 for time spent with the doctor and 3.63 for interpersonal manner and communication. This suggests that the average response was slightly towards agreement, indicating satisfaction with a variety of aspects of health care. However, since the highest score on the scale is 5, the average scores shown in Table 4 also indicate room for improvement.

Table 4: Patient Satisfaction (PSQ-18) Subscales (n=118)

Scale	Mean (SD)
General Satisfaction	3.29(0.935)
Technical Quality	3.43(0.686)
Interpersonal Manner	3.63(0.791)
Communication	3.63(0.882)
Financial Aspects	3.50(1.11)
Time Spent with Doctor	3.25(0.926)
Accessibility and Convenience	3.26(0.877)

Perceived quality of care. According to Table 5, most respondents agreed they had positive experiences with members of their health care team. For example, a majority of respondents reported agreeing that they were treated with dignity, that they were respected by the clerical staff, that the medical care was as good as that provided at other hospitals, that the doctors and nurses explained procedures they were having and asked questions, and that they received answers to health care questions. On average, a majority of respon-

Table 5: Perceived Quality of Care (n=141)

Perception of Discrimination	M* n(%)	Strongly Agree (5) n(%)	Agree (4) n(%)	Neutral (3) n(%)	Disagree (2) n(%)	Strongly Disagree (1) n(%)	Mean (SD)
I am treated with dignity.	0(0.0)	21(14.9)	85(60.3)	23(16.3)	9(6.4)	3(2.1)	3.79(0.850)
I feel respected by the clerical staff.	0(0.0)	22(15.6)	83(58.9)	25(17.7)	9(6.4)	2(1.4)	3.81(0.827)
I get to know my doctors.	1(0.7)	25(17.7)	68(48.2)	34(24.1)	12(8.5)	1(0.7)	3.74(0.876)
Doctors & nurses use the most advanced medical knowledge & technique.	2(1.4)	19(13.5)	60(42.6)	45(31.9)	12(8.5)	3(2.1)	3.58(0.909)
Medical care is as good as the care provided in other hospitals in this community.	2(1.4)	20(14.2)	66(46.8)	33(23.4)	16(11.3)	4(2.8)	3.59(0.969)
Doctor & nurses treat veterans with the respect they deserve.	2(1.4)	13(9.2)	64(45.4)	40(28.4)	17(12.1)	5(3.5)	3.45(0.950)
In general, doctors and nurses explain procedures I might be having.	2(1.4)	16(11.3)	91(64.5)	23(16.3)	6(4.3)	3(2.1)	3.80(0.782)
In general, doctors and nurses ask me about or discuss my spiritual needs.	2(1.4)	4(2.8)	11(7.8)	35(24.8)	71(50.4)	18(12.8)	2.37(0.910)
In general, doctors and nurses ask questions.	2(1.4)	19(13.5)	90(63.8)	17(12.1)	10(7.1)	3(2.1)	3.81(0.842)
In general, doctors and nurses give me a chance to explain problems or issues I am having that might be affecting my health.	2(1.4)	20(14.2)	92(65.2)	17(12.1)	6(4.3)	4(2.8)	3.85(0.825)
I am able to see a specialist when I need to.	3(2.1)	16(11.3)	61(43.3)	29(20.6)	24(17.0)	8(5.7)	3.38(1.08)
I am able to get the immediate attention of my health care provider when I need to.	4(2.8)	14(9.9)	62(44.0)	34(24.1)	19(13.5)	8(5.7)	3.40(1.04)
I am able to get procedures that are recommended and needed in a timely fashion.	1(0.7)	6(4.3)	74(52.5)	34(24.1)	22(15.6)	4(2.8)	3.40(0.904)
I get answers to my health care questions from my health care providers.	2(1.4)	18(12.8)	83(58.9)	22(15.6)	14(9.9)	2(1.4)	3.73(0.866)
I have received follow-up services to assist me with my health care needs.	7(5.0)	5(3.5)	44(31.2)	47(33.3)	30(21.3)	8(5.7)	3.06(0.971)
Sum of Quality of Care Questions Range 15-75	0(0.0)						52.0(9.9) Range 23-75

*M column= frequency and raw % of missing

dents were positive to nearly all the 15 items with two exceptions. Most respondents disagreed that doctors and nurses asked them about their spiritual needs. Only a third of the respondents agreed that they received follow-up care to assist with their health care needs.

“I was thought to be a drug addict and made to feel insignificant.”

Table 6: Perceptions of Health Care Discrimination (n=141)

Perception of Discrimination	M* n(%)	Strongly Disagree (1) n(%)	Disagree (2) n(%)	Neutral (3) n(%)	Agree (4) n(%)	Strongly Agree (5) n(%)	Mean (SD)
Doctors treat veterans of color and White veterans with the same amount of respect.	4(2.8)	12(8.5)	27(19.1)	41(29.1)	47(33.3)	10(7.1)	3.12(1.09)
Nurses treat veterans of color and White veterans with the same amount of respect.	6(4.3)	6(4.3)	16(11.3)	53(37.6)	51(36.2)	9(6.4)	3.30(0.925)
I can recall a situation in which I experienced discrimination where I receive my health care services.	4(2.8)	5(3.5)	21(14.9)	37(26.2)	57(40.4)	17(12.1)	3.44(1.01)

*M column= frequency and raw % of missing

Perceptions of health care discrimination. As shown in Table 6, between 53% and 56% of the veterans reported not agreeing with a statement that black veterans were treated with the same respect by doctors and nurses as white veterans. Also, approximately 78% of the respondents did not agree with a statement that they recalled having an experience of discrimination where they received health care services.

Current health status. As shown in Table 7, self-reported health status ranged quite a bit in the sample. While only 5% reported being in “poor” health, nearly 30% described their health as “fair”, over two-thirds rated their health as either “good” or “very good” and only 7% felt they were in “excellent” health. A majority of respondents reported having little to no limitations in their ability to complete moderate physical activities (moving a table, pushing a vacuum cleaner, etc.) and climbing stairs. In the past 4 weeks, 4 to 11% of the veterans indicated that all or most of the time physical and/or emotional problems contributed to their being less able to accomplish work and other activities and affected the nature and extent of the work and other activities they could do. It is important to note that between 15% to 25% of respondents felt that their ability to carry out work and other activities was negatively affected by physical and/or emotional problems “some of the time” or a “little of the time”. With regard to pain, approximately 40% reported that in the last 4 weeks, pain had interfered with work “moderately”, “quite a bit” or “extremely”. Over two-thirds of the sample indicated feeling calm and peaceful and having lots of energy some to all of the time in the past 4 weeks. Over 60% said they were downhearted or depressed none to a little of the time in the past 4 weeks. About 20% of the respondents felt their physical or emotional health interfered with social activities most or all of the time in the past 4 weeks.

The data presented in Table 8 indicate that during the previ-

ous 4 weeks over a third of the respondents experienced no significant changes in their lives and over a third experienced “a little” to “moderate” changes. About 27% reported experiencing “quite a bit” to “extreme” life changes in the past 4 weeks. A similar number of respondents felt their physical and emotional health stayed the same compared to the previous year. About one fifth reported that their physical and/or mental health was “somewhat” or “much” worse than a year ago while a larger number of individuals reported their emotional health was currently “somewhat” or “much” better than a year ago.

Health conditions most often reported were high blood pressure (56%), depression (41%), arthritis (36.9%), low back pain (33.3%), post-traumatic stress disorder (27%), and diabetes (21.3%). It is also worth noting the prevalence of other serious and debilitating conditions such as congestive heart failure (8.5%), angina/coronary heart disease (7.1%), heart attack (6.4%), stroke (5.7%), chronic lung disease (10.6%), schizophrenia (3.5%), and spinal cord injury w/quadruplegia or paraplegia (3.5%).

“I didn’t know I was VA eligible.”

Relationships between patients who use and do not use VA services on patient satisfaction, quality of care, health care discrimination and health status

Table 9 shows data describing the results of independent sample t-tests and ANOVAs between the different groups of VA and non-VA users and various study variables. There were significant group interactions on experience of discrimination, quality of care, and patient satisfaction (18-item measure). Specifically, users of both VA and non-VA services reported significantly fewer experiences of lifetime discrimination than those using the VA only or non-VA services only ($p < 0.05$). This table also shows that those who used both the VA and non-VA services were significantly more likely to have experienced

Table 7: Health Status and Functioning (SF-12 items) (n=141)

	n(%)	n(%)	n(%)
General Health			
Poor	7 (5.0)		
Fair	42 (29.8)		
Good	49 (34.8)		
Very Good	31 (22.0)		
Excellent	10 (7.1)		
Missing	2 (1.4)		
Limitation in activities			
	Moderate	Climbing stairs	
Limited a lot	17 (12.1)	27 (19.1)	
Limited a little	45 (31.9)	48 (34.0)	
Not limited	75(53.2)	60 (42.6)	
Missing	4 (2.8)	6 (4.3)	
Frequency that physical health problems affected work/other activities, past 4 weeks			
	Accomplished less than would like	Were limited in the kind of work/other activities	
All of the time	8 (5.7)	10 (7.1)	
Most of the time	12 (8.5)	14 (9.9)	
Some of the time	36 (25.5)	32 (22.7)	
A little of the time	27 (19.1)	24 (17.0)	
None of the time	55 (39.0)	55 (39.0)	
Missing	3 (2.1)	6 (4.3)	
Frequency that emotional health problems affected work and other activities, past 4 weeks			
	Accomplished less than would like	Didn't do work/other activities as carefully as usual	
All of the time	6 (4.3)	7 (5.0)	
Most of the time	16 (11.3)	14 (9.9)	
Some of the time	31 (22.0)	29 (20.6)	
A little of the time	22 (15.6)	23 (16.3)	
None of the time	65 (46.1)	59 (41.8)	
Missing	1 (0.70)	9 (6.4)	
Extent pain interfered with work, past 4 weeks			
Extremely	8 (5.7)		
Quite a bit	20 (14.2)		
Moderately	27 (19.1)		
A little bit	32 (22.7)		
Not at all	54 (38.3)		
Frequency of time feeling emotions, past 4 weeks			
	Calm & Peaceful	Lots of Energy	Downhearted & Depressed
All of the time	19 (13.5)	12 (8.5)	2 (1.4)
Most of the time	49 (34.8)	41 (29.1)	11 (7.8)
Some of the time	47 (33.3)	57 (40.4)	37 (26.2)
A little of the time	17 (12.1)	18 (12.8)	48 (34.0)
None of the time	7 (5.0)	9 (6.4)	39 (27.7)
Missing	2 (1.4)	4 (2.8)	4 (2.8)
Frequency of time physical or emotional health interfered with social activities, past 4 weeks			
All of the time	15 (10.6)		
Most of the time	16 (11.3)		
Some of the time	35 (24.8)		
A little of the time	30 (21.3)		
None of the time	44 (31.2)		
Missing	1 (0.70)		

Table 8: Changes in Life Conditions, and Physical and Mental Health, and Self-Reported Health Conditions (n=141)

	n(%)	n(%)	n(%)
Significant changes in living situation, family, friends, or job, past 4 weeks			
Extremely	13 (9.2)		
Quite a bit	26 (18.4)		
Moderately	26 (18.4)		
A little bit	27 (19.1)		
Not at all	48 (34.0)		
Missing	1 (0.70)		
Compared to a year ago:			
	Physical health now	Emotional health now	
Much better	17 (12.1)	18 (12.8)	
Somewhat better	23 (16.3)	33 (23.4)	
About the same	61 (43.3)	56 (39.7)	
Somewhat worse	32 (22.7)	22 (15.6)	
Much worse	7 (5.0)	11 (7.8)	
Missing	1 (0.70)	1 (0.70)	
Frequency of health conditions in sample:			
	Yes	No	Missing
High blood pressure	79 (56.0)	60 (42.6)	2 (1.4)
Benign prostatic hypertrophy	16 (11.3)	123 (87.2)	2 (1.4)
Low back pain	47 (33.3)	93 (66.0)	1 (0.70)
Congestive heart failure	12 (8.5)	127 (90.1)	2 (1.4)
Stroke	8 (5.7)	129 (91.5)	4 (2.8)
Arthritis	52 (36.9)	87 (61.7)	2 (1.4)
Angina/coronary heart disease	10 (7.1)	125 (88.7)	6 (4.3)
Heart attack	9 (6.4)	129 (91.5)	3 (2.1)
Chronic lung disease	15 (10.6)	125 (88.7)	1 (0.70)
Cancer (not skin cancer, except melanoma)	2 (1.4)	137 (97.2)	2 (1.4)
Depression	58 (41.1)	82 (58.2)	1 (0.70)
Post-traumatic stress disorder	38 (27.0)	101 (71.6)	2 (1.4)
Schizophrenia	5 (3.5)	133 (94.3)	3 (2.1)
Spinal cord injury w/ quadriplegia or paraplegia	5 (3.5)	135 (95.7)	1 (0.70)
Diabetes	30 (21.3)	110 (78.0)	1 (0.70)

Table 9: Relationship of VA Use Groups with Main Study Variables (n=141)

	VA Users Only (n= 51) mean (SD)	Non-VA Users Only (n= 49) mean (SD)	Users of Both VA & Non-VA (n= 41) mean (SD)	T-Test Statistic	F-test Statistic
Experience of Discrimination	4.75(2.56)	4.98(2.50)		-0.464	
		4.98(2.50)	6.02(2.44)	-2.00*	
	4.75(2.56)		6.02(2.44)	-2.43*	3.25*
Healthcare Discrimination (3 items)	9.76(2.62)	9.92(2.64)		-0.292	
		9.92(2.64)	8.78(2.79)	1.98*	
	9.76(2.62)		8.78(2.79)	1.74	2.32
PCS	50.6(13.6)	53.0(12.9)		-0.863	
		53.0(12.9)	48.5(11.7)	1.68	
	50.6(13.6)		48.5(11.7)	0.784	1.32
MCS	27.0(6.81)	27.7(6.04)		-0.521	
		27.7(6.04)	25.8(6.15)	1.49	
	27.0(6.81)		25.8(6.15)	0.917	1.04
Quality of Care (15 items)	53.0(10.1)	54.9(8.83)		-1.01	
		54.9(8.83)	47.2(9.95)	3.89***	
	53.0(10.1)		47.2(9.95)	2.74**	7.57***
Quality of Care (1 items)	3.88(0.849)	3.98(0.924)		-0.559	
		3.98(0.924)	3.41(0.948)	2.86**	
	3.88(0.849)		3.41(0.948)	2.47*	4.84**
Patient Satisfaction (18 items)	65.6(11.8)	62.3(11.5)		1.29	
		62.3(11.5)	53.2(12.8)	3.24**	
	65.6(11.8)		53.2(12.8)	4.51***	11.1***
Patient Satisfaction (1 items)	3.73(1.06)	3.75(1.16)		-0.110	
		3.75(1.16)	3.32(1.06)	1.83	
	3.73(1.06)		3.32(1.06)	1.84	2.14

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

health care discrimination than those who used non-VA services only ($p < 0.05$). The non-VA users perceived significantly greater quality of care and patient satisfaction than those receiving the VA and non-VA services ($p < 0.01$). Those who used the VA only also had significantly greater perceived quality of care and patient satisfaction than those who used both the VA and non-VA services ($p < 0.01$). There was no significant difference between the VA users only and non-VA users only across the various study variables in Table 9. There were also no significant differences across the VA groups on both the physical and mental health scores.

Predictors of patient satisfaction, perceived quality of care, physical health status and mental health status among African-American veterans

Tables 10-13 present results of analyses investigating predictors of each of the following: patient satisfaction, perceived quality of care, physical health status and mental health sta-

tus. Each table presents four regression models using a stepwise approach of entering demographic variables in Model 1, then adding health-related and other control variables in Model 2, then adding a 3-item or 1-item health care discrimination variable in Models 3 and 4 respectively.

Patient satisfaction and quality of care. The pattern of results was fairly similar in Tables 10 and 11. That is, age was a significant predictor of both perceived quality of care and health care satisfaction in Model 1 but disappeared in the remaining models. Getting help to go to the doctor was a significant predictor of quality of care in regression Models 2 and 4 but not Model 3 and a significant predictor of patient satisfaction in only Model 1. After controlling for known predictors of quality of care and patient satisfaction, going to one type of provider (either VA or non-VA) and having fewer experiences of lifetime discrimination were consistent and significant predictors of higher quality of care and higher patient satisfaction in

Predictors	Quality of Care			
	Model 1 β	Model 2 β	Model 3 β	Model 4 β
Age	0.216*	0.097	0.115	0.092
Grade Level	-0.030	0.036	0.047	0.023
Working†	0.060	0.022	-0.047	-0.031
Certified Disability†	-	-0.009	0.003	0.040
Help to Go to Doctor†	-	0.218*	0.144	0.167*
Use of VA†	-	-0.240**	-0.189**	-0.226**
Experience of Discrimination	-	-0.292***	-0.196**	-0.246**
Health Care Discrimination (3 items)	-	-	0.449***	-
Health Care Discrimination (1 item)	-	-	-	0.319***

†Dichotomous variables, β = Standardized Beta Coefficient, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Grade Level: Grade level: 1= High School or less, 2= Some College, 3= College Graduate/Grad School; Working: 0= Not Working, 1= Working; Certified Disability: 0= No, 1=Yes; Help to Doctor: 0= No, 1= Yes, Use of VA: 0= VA-only or Non-VA only providers, 1= VA and Non-VA providers, Experience of Discrimination: Sum of Experience of Discrimination items, Healthcare Discrimination (3 items): Sum of 2 items on if doctors or nurses treat veterans of color and white veterans with the same amount of respect & 1 global item: "I can recall a situation in which I experienced discrimination where I receive my health care services." Healthcare Discrimination (1 item): same global item as in 3-item measure, Quality of Care: Sum of Quality of Care items. Adjusted R^2 for Model 1= 0.025 ($F=2.18$, $df=3$; $p=0.093$); Adjusted R^2 for Model 2= 0.257 ($F=7.76$, $df=7$; $p < 0.001$); Adjusted R^2 for Model 3= 0.433 ($F=14.1$, $df=8$; $p < 0.001$); Adjusted R^2 for Model 4= 0.340 ($F=9.55$, $df=8$; $p < 0.001$).

Predictors	Patient Satisfaction			
	Model 1 β	Model 2 β	Model 3 β	Model 4 β
Age	0.226*	0.091	0.113	0.064
Grade Level	0.010	0.084	0.099	0.084
Working†	-0.031	-0.071	-0.109	-0.113
Certified Disability†	-	-0.012	0.000	0.051
Help to Go to Doctor†	-	0.173*	0.117	0.131
Use of VA†	-	-0.297***	-0.268***	-0.288***
Experience of Discrimination	-	-0.390***	-0.302***	-0.324***
Health Care Discrimination (3 items)	-	-	0.313***	-
Health Care Discrimination (1 item)	-	-	-	-0.321***

†Dichotomous variables, β = Standardized Beta Coefficient, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Grade Level: Grade level: 1= High School or less, 2= Some College, 3= College Graduate/Grad School; Working: 0= Not Working, 1= Working; Certified Disability: 0= No, 1=Yes; Help to Doctor: 0= No, 1= Yes, Use of VA: 0= VA-only or Non-VA only providers, 1= VA and Non-VA providers, Experience of Discrimination: Sum of Experience of Discrimination items, Healthcare Discrimination (3 items): Sum of 2 items on if doctors or nurses treat veterans of color and white veterans with the same amount of respect & 1 global item: "I can recall a situation in which I experienced discrimination where I receive my health care services." Healthcare Discrimination (1 item): same global item as in 3-item measure, Patient Satisfaction Questionnaire: Sum of PSQ-18 scores Adjusted R^2 for Model 1= 0.030 ($F=2.18$, $df=3$; $p=0.094$); Adjusted R^2 for Model 2= 0.355 ($F=9.96$, $df=7$; $p < 0.001$); Adjusted R^2 for Model 3= 0.436 ($F=12.0$, $df=8$; $p < 0.001$); Adjusted R^2 for Model 4= 0.444 ($F=12.1$, $df=8$; $p < 0.001$).

Models 2 to 4. Both Models 3 and 4 of Tables 10 and 11 showed that reporting less health care discrimination was a significant and strong predictor of higher perceived quality of care and patient satisfaction ($p < 0.001$).

Physical and mental health status. Tables 12 and 13 revealed a different set of results in predicting physical and mental health status/functioning. In Table 12, having more education and being employed were significant predictors of higher physical functioning in all four models ($p < 0.05$). Also, not having a certified disability was a significant predictor in Models 2, 3 and 4 of greater physical functioning ($p < 0.01$).

The results regarding perceived health care discrimination were mixed. Model 4 indicated that less perceived health care discrimination using the 1-item measure was a significant predictor of higher physical functioning; whereas the 3-item health care discrimination was not a significant predictor in Model 3. All other study variables were not significant predictors of physical health status.

Table 13 presents the tested models of predictors of mental health status. Age was a significant predictor in only the first model. Having help to get to the doctor was the only consistent significant predictor of greater mental functioning ($p < 0.05$).

Predictors	Physical Health Status			
	Model 1 β	Model 2 β	Model 3 β	Model 4 β
Age	-0.061	-0.105	-0.092	-0.116
Grade Level	0.192*	0.213*	0.215**	0.223**
Working†	0.259**	0.203*	0.174*	0.183*
Certified Disability†	-	-0.276***	-0.276***	-0.225**
Help to Go to Doctor†	-	0.045	0.013	0.004
Use of VA†	-	-0.067	-0.052	-0.046
Experience of Discrimination	-	-0.159	-0.117	-0.140
Health Care Discrimination (3 items)	-	-	0.162	-
Health Care Discrimination (1 item)	-	-	-	0.219*

†Dichotomous variables, β = Standardized Beta Coefficient, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Grade Level: Grade level: 1= High School or less, 2= Some College, 3= College Graduate/Grad School; Working: 0= Not Working, 1= Working; Certified Disability: 0= No, 1=Yes; Help to Doctor: 0= No, 1= Yes, Use of VA: 0= VA-only or Non-VA only providers, 1= VA and Non-VA providers, Experience of Discrimination: Sum of Experience of Discrimination items, Healthcare Discrimination (3 items): Sum of 2 items on if doctors or nurses treat veterans of color and white veterans with the same amount of respect & 1 global item: "I can recall a situation in which I experienced discrimination where I receive my health care services." Healthcare Discrimination (1 item): same global item as in 3-item measure., Physical Status: Physical Component Summary Score of SF-12. Adjusted R^2 for Model 1= 0.108 ($F=6.23$, $df=3$; $p < 0.001$); Adjusted R^2 for Model 2= 0.215 ($F=6.00$, $df=7$; $p < 0.001$); Adjusted R^2 for Model 3= 0.231 ($F=5.81$, $df=8$; $p < 0.001$); Adjusted R^2 for Model 4= 0.265 ($F=6.58$, $df=8$; $p < 0.001$).

Predictors	Mental Health Status			
	Model 1 β	Model 2 β	Model 3 β	Model 4 β
Age	0.213*	0.102	0.105	0.101
Grade Level	0.048	0.057	0.057	0.055
Working†	-0.081	-0.119	-0.126	-0.116
Certified Disability†	-	-0.035	-0.034	-0.005
Help to Go to Doctor†	-	0.247*	0.240*	0.238*
Use of VA†	-	-0.105	-0.102	-0.085
Experience of Discrimination	-	-0.008	-0.001	-0.033
Health Care Discrimination (3 items)	-	-	0.038	-
Health Care Discrimination (1 item)	-	-	-	0.068

†Dichotomous variables, β = Standardized Beta Coefficient, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Grade Level: Grade level: 1= High School or less, 2= Some College, 3= College Graduate/Grad School; Working: 0= Not Working, 1= Working; Certified Disability: 0= No, 1=Yes; Help to Doctor: 0= No, 1= Yes, Use of VA: 0= VA-only or Non-VA only providers, 1= VA and Non-VA providers, Experience of Discrimination: Sum of Experience of Discrimination items, Healthcare Discrimination (3 items): Sum of 2 items on if doctors or nurses treat veterans of color and white veterans with the same amount of respect & 1 global item: "I can recall a situation in which I experienced discrimination where I receive my health care services." Healthcare Discrimination (1 item): same global item as in 3-item measure, Quality of Care: Sum of Quality of Care items, Mental Status: Mental Component Summary Score of SF-12. Adjusted R^2 for Model 1= 0.037 ($F=2.66$, $df=3$; $p=0.051$); Adjusted R^2 for Model 2= 0.070 ($F=2.38$, $df=7$; $p < 0.05$); Adjusted R^2 for Model 3= 0.063 ($F=2.08$, $df=8$; $p < 0.05$); Adjusted R^2 for Model 4= 0.070 ($F=2.16$, $df=8$; $p < 0.05$).

DISCUSSION

The present study explores the perceptions and experiences of African-American veterans in the health care system. Specifically, we set out to (1) describe African-American veterans' perceptions of health care and their health status, (2) examine how VA use/non-use was related to perceptions of health care and their health status, and (3) explore the role of perceived discrimination and other predictors in patient satisfaction, perceived quality of care, and health status.

African-American veterans' perceptions of health care

On average, study participants expressed modest satisfaction with their health care. There was a sizeable minority not satisfied or neutral towards their health care. These findings are somewhat inconsistent with prior research showing patient evaluations of their physicians and VA care to be relatively high (Kressin et al., 2002; Ren et al., 2001). Yet, veterans' responses indicate the need for improvement in some areas; these areas related to their confidence in diagnosis, access to medical specialists, time doctors spend with patients, and getting medical care in a timely manner. The present study showed African-American veterans have lower confidence in their providers than shown in prior literature findings, 46% vs. 69% respectively (Collins et al., 2002). About the same percentage, 30%, of veterans in the present sample as in a sample of those in a 2002 study by the Commonwealth Fund indicated feeling rushed when with the doctor (Collins et al., 2002). Further, about one-fifth indicated some disagreement with the statement that doctors and nurses treat veterans of color and White veterans with the same amount of respect. This matches a prior literature finding that about 25% of African-American veterans feel they are not treated with dignity and respect (Collins et al., 2002), suggesting that around a fifth of our sample felt there was some discrimination by their health care provider.

An important finding is that African-American veterans disagreed that their health care providers asked about their spiritual needs and that only a third of the respondents felt they were provided follow-up services to assist them with their health care needs. Many respondents expressed significant concern about the lack of spiritual assessment to researchers during survey administration. Prior literature shows that religion has an important role in the lives of African-American veterans (Kressin et al., 2002; Kressin et al., 2004). Further, religious affiliation has been shown to be an important and positive factor associated with exercise adherence among African-American veterans (Izquierdo-Porrera et al., 2002). Thus, our findings confirm the need for a stronger integration of spiritual assessments in the health care management of African-American veterans. Such assessments may foster greater satisfaction with care and desire to follow treatment. Future research needs to explore ways for VA providers to

integrate chaplain services with medical care so African-American patients feel their spiritual needs are being met holistically by the medical team.

Specific quality of care findings indicate that only a third of the African-American veterans agreed they received follow-up care to meet their health care needs. This is lower than the 64% of a general African-American population with diabetes who received follow-up monitoring (eye exams, foot exams, and blood pressure monitoring) in a six to twelve month time period (Collins et al., 2002). Future research needs to explore ways to improve follow-up services to assist veterans with their health care needs. Better follow-up care would hopefully lead to more consistent disease management and improved patient outcomes.

Another very important set of findings of the study was that (1) more than half of the veterans did not agree with a statement that "their physician and nurse providers treated them with as much respect as white veterans" and (2) almost 80% did not disagree with the statement "I recall a situation in which I experienced discrimination where I receive my health care services". The first of these findings support prior literature that African-American veterans were more likely to report experiences of racial discrimination than white veterans (Kressin et al., 2004). Kressin et al. (2004) did not specify experiences with racial discrimination as it related to health care providers or services. Survey and interview research out of the public health offices of King County, Seattle, have more specifically explored racial discriminations in health care among African-Americans but not specifically among veterans (Hobson, 2001). The King County Ethnicity and Health Survey of 1995-1996 indicated that one in three African-Americans living in Central and Southeast Seattle perceived discrimination in health care (Hobson, 2001). In a follow up report, the public health office of King County commissioned an interview project. They conducted 51 interviews with African-Americans living in King County about racial discrimination experiences in health care (Hobson, 2001). On average, there were 1.5 experiences of racial discrimination per interviewee. Several respondents indicated changing their health-seeking behaviors because of such discrimination. Their negative experiences caused some respondents to avoid the institutions providing the discriminatory care and/or delay their efforts to seek treatment, partially due to not knowing where else to get care (Hobson, 2001). Our study of African-American veterans showed almost 50 percent higher amount of perceived discrimination than that reported in 1995-1996 King County Ethnicity and Health Survey. A study similar to that conducted in Seattle would be informative in Boston in order to better document more thoroughly the experiences of racial discrimination among African-American veterans locally. Such scientific data about the nature and extent of racial discrimination among African-Americans veterans is needed to identify the best approaches to making our health care system more responsive and respectful of African-American veterans.

Perceived Health status of African-American veterans

Our findings show that while the majority of participants reported their health status to be good or excellent, a sizeable minority did not. This was consistent with the proportion reporting limitations in functional health status and the high prevalence of some physical health conditions such as high blood pressure, low back pain, arthritis, and diabetes, as well as mental health problems including depression and post traumatic stress disorder. The prevalence of high blood pressure, chronic low back pain, and diabetes was within the ranges previously reported in the literature for ambulatory veterans (Kazis et al., 2004a; Selim et al., 2004). The prevalence of depression (41.1%) in this study was fairly similar to that found in a previous study of outpatient veterans (Hankin et al., 1999) but a bit higher than that reported in the study by Selim and colleagues (2004). The sample in the present study, however, had a higher prevalence of PTSD than previously reported in two studies (Hankin et al., 1999; Selim et al., 2004).

“I use other health care because of the extensive waiting time, lack of primary care, and doctor to patient time [at the VA hospital] when you finally get an appointment. Secondly, I have health benefits from my job.”

Relationship between VA Use/Non-use to perceptions of health care and perceived health status

This study found that about 34% of the sample were dual users of both VA and non-VA services. This finding is similar to the 28% reported by Borowsky and Cowper (1999). When you add to these dual users the number of respondents who did not go to the VA at all, results indicate that about two-thirds of the sample did not use the VA as their sole provider. This indicates that a large percentage of African-American veterans are using services outside a health care system that is available to them by function of their past military service. The decision to use non-VA services may have to do with different health benefits from current employment and/or dissatisfaction with VA services (Stroupe et al., 2005). Individuals who are dual users may be more inclined to be less satisfied with one type of care and for this reason may have shifted to outside VA sources. Those individuals likely to use one type of service, VA or non-VA, may be more likely satisfied with their source of care and not likely to go out of a given service type. Since only about 10% of the sample indicated a lack of willingness to use

the VA in the future and more than half of the sample had alternative health care, the decision not to use VA services may have less to do with dissatisfaction with the VA system and more with their access to other sources of health care. Future research should examine reasons why veterans use services outside the VA system.

African-American veterans were significantly more likely to have lower patient satisfaction and perceived quality of care when going to dual providers than when using only one type of provider. Prior literature supports the relationship between dual use and dissatisfaction with health care (Bean-Mayberry et al., 2004; Stroupe et al., 2005). These findings may be explained in part by the feelings and experiences of veterans who go to dual providers compared to those who only go to one type of provider (VA-only vs. non-VA only). Veterans who go to dual providers may have had negative experiences that pulled them out of the VA system for some services and not others. Individuals who go to one type of provider may have had more consistent positive experiences with the one type of care and, therefore, are more satisfied with that type of care.

Predictors of perceptions of health care and health status

Our findings indicate that after controlling for known predictors of health outcomes, less health care discrimination is significantly related to higher patient satisfaction and higher perceived quality of care. This appears to be the first known report of this relationship among an African-American veteran population. These findings are consistent with prior studies showing a relationship between patient experience of discrimination in the health care system and their satisfaction with care (Chen et al., 2005; Malat and Van Ryn, 2005). It seems relatively intuitive that perceived discrimination by health care providers would be directly related to negative evaluations of care.

Less obvious may be the relationship between lifetime discrimination and perceptions of quality of care and patient satisfaction. It is possible that lifetime discrimination predisposes patients to perceive health care as less satisfying and affects their interactions with providers. Alternatively, it is also possible that those who experience lifetime discrimination are more likely to also experience discrimination from health care providers. While these potential explanations are plausible, there is some evidence suggesting that it is only personal experiences with health care discrimination that impact patient outcomes and not prior knowledge of historical discrimination or perceptions of current disparities in treatment (Malat and Van Ryn, 2005). We did explore the possibility of an interaction effect between the two discrimination measures on patient satisfaction and perceived quality of care. A post-hoc analysis found no significant interaction on these two outcomes (data not shown). Thus, each discrimination measure appears to be a significant and independent predictor of these

outcomes. More research needs to be conducted to uncover the psychosocial processes linking experience of past discrimination, patient satisfaction, and perceived quality of care.

Further, having help to the doctor was a significant predictor in the full model predicting perceived quality of care. This result reinforces prior findings that issues of access are quite relevant to perceived quality of care and other outcomes (Commonwealth Fund, 1999; Geronimus, 2000; Collins et al., 2002; Gary et al., 2004; Boston Public Health Commission, 2005). Future work should explore specific concerns that veterans have in getting to the doctor and resources that might be identified to help veterans to get to the doctor.

*“I have seen vets of color who ask
for special services not receive them
but when whites ask for same services,
they receive them.”*

We found a negative and significant association between health care discrimination and physical health status but not mental health status. We are not aware of any previous literature documenting these specific relationships in African-American veterans. Yet, such findings do support similar findings relating lifetime experiences of discrimination and physical health (Krieger, 1990; Krieger and Sidney, 1996; Borrell et al., 2006). On the other hand, our findings regarding health care discrimination do not support those of prior literature describing a significant negative relationship between lifetime discrimination and mental health (Fischer and Shaw, 1999; Williams and Williams-Morris, 2000; Gee et al., 2006; Borrell et al., 2006). It is also unclear why study results specifically testing the relationships between lifetime discrimination and physical and mental health were not supported. The difference between findings in this study and those reported in the literature may be accounted for by differences in measurements and samples. Our lifetime discrimination measure was the same as the 9-item situation measure used in the literature to explore the frequency of past discrimination experiences (Krieger et al., 2005).

Interestingly, perceived physical functioning was not related with age. Conversely, Selim and colleagues (2004) found that increasing age was associated with lower physical health status. As expected, physical health status was also positively and significantly associated with educational attainment consistent with findings from other studies (Ross and Wu, 1996). Mental health status, on the other hand, was unrelated to both age and educational attainment, a finding not consistent with the literature (Miech and Shanahan, 2000; Selim et al., 2004; Ku et al., 2006). The significant association between greater physical functioning and not having a certified disability or being employed was to be expected. It seems relatively clear that those who have greater physical health status would be less likely to have a certified disability and/or be working.

*“In general the way our society
operates the doctor just makes
assumptions and treats people based
upon the color and on origin.”*

Study Limitations

The present study had several limitations. First, the convenience sample may not be representative of African-American veterans in Boston so findings may not be generalizable to all African-American veterans. Second, the relatively small sample size limited our ability to conduct certain types of analyses that would have allowed us to more fully explore the complex relationships among the variables studied. Our attainment of a larger sample size was impeded by difficulty in recruitment of veterans. Future field investigations such as those being reported here will need to explore additional multi-level means of recruiting African-American veterans. Third, while our measure of health care discrimination is modeled after measures used in the literature, it requires validation. Finally, the study lacked samples of veterans from other racial/ethnic groups that would have made assessment of disparities in health status, patient satisfaction and quality of care possible.

CONCLUSIONS AND RECOMMENDATIONS

Findings from this study suggest that African-American veterans are living with significant physical and mental health problems that seem unrelated to the older age of the sample. In this light, issues of access to health care, perceptions of discrimination, the quality of care and satisfaction with care become even more relevant and urgent. Lacking a comparison group, we are not able to fully ascertain disparities based on race in relation to such factors. Studies that can make such comparisons are needed. Nevertheless, the findings suggest that health care systems serving veterans, especially the VA, should solicit the assistance of a veteran's advocacy group such as Tri-Ad Veterans, to monitor and assist the VA to address identifiable disparities with access, patient satisfaction, and quality of care.

“I think that the lack of awareness of the life style of African-Americans and our culture makes it more difficult for white doctors to achieve the intimacy level needed to provide the best health care to their black patients.”

The findings that many African-American veterans perceived that their providers did not show the same respect to them as white veterans and that most did not disagree that they had experienced discrimination in the health services they received are of significant concern. Such findings highlight the need for more investigation, such as the King County Racial Discrimination in Health Care Interview Project (Hobson, 2001), into the nature and extent of these experiences among African-American veterans. The significant relationships between such

perceived discrimination from health care providers and satisfaction with care, quality of care and physical functioning also have important implications for health care delivery to African-American veterans. First, a comprehensive review and ongoing performance-based monitoring of policies and provider behaviors that may wittingly or unwittingly contribute to unequal treatment in health care or perceptions of such treatment are needed. Second, efforts should be strengthened and made compulsory to educate administrators and service providers about health disparities, unconscious clinician bias and cultural competency, need for more assessment of spiritual beliefs and how they relate to patients' illness, and the importance for more follow-up to meet health needs. Third, Tri-Ad Veterans could assist with the ongoing review and analysis of the significant relationships between perceived discrimination from health care providers, especially in area VA health facilities, and satisfaction with quality care to African-Americans. Tri-Ad Veterans should assist with comprehensive reviews and ongoing performance-based monitoring of policies and provider behaviors.

Based on findings from this study, we also make the following recommendations for further research. First, measures for assessing discrimination in health care of veterans need to be further developed and validated. Second, as mentioned previously, more studies (both surveys and in depth interviews) that include veterans from the largest race/ethnic groups need to be conducted to fully assess disparities in health status, access to health care, satisfaction with health care and the role of perceived discrimination in the aforementioned factors. Third, policy changes and provider-level interventions to reduce discrimination in health care are needed to identify the most effective strategies that result in equal and high quality services. Fourth, research is needed to better understand African-American veterans' choices regarding using or not using VA services and how satisfaction with care, perceived quality of care and experiences of discrimination impact on such choices. Fifth, that Tri-Ad Veterans, provide the leadership to mobilize the necessary resources to implement the recommendations for future study.

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Tri-Ad Veterans League, Inc.

Tri-Ad Veterans League, Inc.'s start goes back 20 years when it was founded by Haywood Fennell, Sr. and other veterans attending colleges in the Tri-Ad area of North Carolina. The Tri-Ad area is composed of Greensboro, High Point and Winston-Salem. The original mission was to develop a social network of support for veterans attending classes in the area, develop culturally related educational activities, and be involved in community activities. It was incorporated by the Secretary of the State of North Carolina as a non-profit veteran's group to do business anywhere in the United States and its territories. Tri-Ad Veterans League as an organization ceased to function for several years prior to its reformation about ten-years ago in Boston, MA.

Tri-Ad Veterans League, Inc. is committed to the principle of collaboration in working with other veterans' organizations to enhance health services for veterans, develop strategies for harm reduction in the areas of substance abuse, HIV/AIDS awareness, prostate cancer education outreach, health disparities, policy changes to create culturally sensitive and appropriate health service and treatment models for both medical and administrative personnel and facilitate veteran's involvement in community education/cultural projects.

Tri-Ad believes that through working to affect positive change in the community, it can impact the mindset of apathy and improve the sense of self-esteem, dignity, and belonging crucial to the development of an individual and the community in which they live.

Tri-Ad Veterans League, Inc.
31 Heath St.
Jamaica Plain, MA. 02130
Tel: 617-238-2460
Fax: 617-442-6622
Email: Triadveterans@hotmail.com

Institute on Urban Health Research, Northeastern University

The Institute on Urban Health Research (IUHR), under the direction of Dr. Hortensia Amaro, is devoted to knowledge discovery and its practical application to improve personal and public health within urban communities. The IUHR is particularly focused on understanding the social and environmental conditions of urban living in order to inform public health intervention strategies, policies and professional training.

Contact Information:
Hortensia Amaro, Ph.D., Distinguished Professor,
Bouve College of Health Sciences
Northeastern University
350 Huntington Avenue, Stearns Suite 503
Boston, MA 02115-5000
Phone: (617) 373-7601
Fax: (617) 373-7309
h.amaro@neu.edu
www.iuhr.neu.edu

Boston Public Health Commission (BPHC)

The Boston Public Health Commission is the city's health department, and its mission is to protect, preserve and promote the health and well-being of all Boston residents, particularly the most vulnerable.

Contact information:
Boston Public Health Commission
1010 Massachusetts Avenue
Boston, MA 02118
(617) 534-5395 (p)
(617) 534-5358 (f)
(617) 534-9799 (tty)
communications@bphc.org