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CULTURAL HEALTH CAPITAL AND THE DOCTOR-PATIENT ENCOUNTER: AN EXPLORATORY ANALYSIS

A THESIS APPROVED FOR THE

DEPARTMENT OF SOCIOLOGY

BY THE COMMITTEE CONSITING OF

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Abstract

Doctor-patient interactions look different than they did 30 years ago. Who has the power and influence in doctor-patient relationships? The doctor, the patient, or a shared power? In recent decades, doctor-patient interactions have transitioned toward more patient-centered encounters, in which the influence and control in the encounter is shared. This study examines whether patient cultural health capital impacts the way doctors and patients interact. Cultural health capital is a "specialized collection of cultural skills, attitudes, behaviors and interactional styles that are valued, leveraged, and exchanged by both patients and providers during clinical interactions" (Dubbin, Chang, and Shim 2013, p. 113).

To understand why every patient does not experience patient-centered care during medical encounters, this paper explores how cultural health capital impacts the doctor-patient encounter. In this exploratory quantitative analysis, I leverage audiotaped medical examinations from an eleven-month study at a family medicine practice to examine how a patient's cultural health capital influences the doctor-patient interaction type. I use logistic regression to predict patient-centered care based on patient health literacy when holding patient and doctor demographic characteristics constant. My results demonstrate that patient cultural health capital is not statistically related to having a patient-centered encounter. This study finds when patients have high health literacy rates, their odds of receiving patient-centered care do not differ significantly from patients with low health literacy. Patients with high levels of income and education have the greatest odds of receiving patient-centered care. Ultimately, this study suggests that a patient's cultural health capital, at least in terms of health literacy, is not associated with the probability of patients receiving patient-centered care.

Introduction

One injury, two surgeries, three doctors, one conclusion: the patient's pain is all in her head. This has been my experience with doctors in the past and is not unique to me, as friends have lamented similar stories. But doctor-patient encounter experiences can be different. The dynamic of power in doctor-patient relationships and the influence of patients within the encounters have been well researched and documented (e.g., Peck and Conner 2011). However, there is no exploratory empirical analysis on the ways in which patients' health knowledge and skills influence doctor-patient interactions.

Doctors have historically leaned on their intuition, knowledge, and training to create a paternalistic environment for doctor-patient encounters, doing what they believe is best for the patient and acting as a guardian figure (Heritage and Maynard 2006; Parsons [1951] 1964). Talcott Parsons first described this doctor-patient relationship as doctors taking leadership and responsibility for their patients (Parsons 1985). In recent decades, there has been a shift away from paternalistic encounters to more patient-centered encounters (Street et al. 2003). Patient-centered care has become the new model for medical encounters. Today, the norm is for doctors and patients to view their encounters as a sort of negotiation between two experts, with increasing importance being placed on the patients' experiences and views of their illness and their treatment plan (Gore and Ogden 1998).

Patient-centered care is medical care that respects and values the patient's needs and wishes (IOM 2001). A large body of research suggests that patient-centered care results in positive outcomes for patients. For example, patient-centered encounters are associated with a better recovery process from surgery and fewer referrals to other medical specialists (Stewart et al. 2000). There is also a link between patients who receive patient-centered care and higher satisfaction with doctors and the medical encounter as a whole (Magnan et al. 2020). In addition,

research suggests that patient-centered encounters are associated with better health outcomes for patients in general (Bell et al. 2002; Malat 2006) as well as for specific patient groups, such as cancer patients (Epstein et al. 2017; IOM 2013). The evidence that patient-centered encounters generally result in better outcomes for patients culminated in the formal recommendation in 2001 by the Institute of Medicine (IOM) that the delivery of healthcare should be patient-centered (IOM 2001).

Despite the recommendation by the IOM and the overwhelming evidence regarding the positive outcomes for patient-centered encounters, there are still medical encounters that are not altogether patient-centered. A recent estimate suggests that as much as 40 percent of primary care encounters are not collaborative or patient-centered (Peck and Conner 2011). While patient-centered encounters are related to positive outcomes for patients, paternalistic encounters are related to negative outcomes for patients (Peck 2011). A common finding from the existing literature is that patients in paternalistic encounters do not feel heard (Roter and Hall 2006) and thus experience frustration and anxiety.

The existing literature is lacking in terms of understanding why paternalistic encounters are still relatively common. Several explanations have been suggested for why some medical encounters are still paternalistic in nature. Some of these explanations focus on doctor characteristics such as race, age, and gender of the physician (Fenton et al. 2017). Shim (2010) suggests that doctors have preconceived biases based on the patient's behavior and medical self-awareness. These biases may lead doctors towards a less patient-friendly approach and the utilization of paternalistic care in the way Parson described. Other researchers focus on patient characteristics of race, gender, and social class (Fenton et al. 2019). For example, upper-class and middle-class individuals have more positive doctor-patient encounters when compared to

their lower-class or working-class counterparts (King, Jennings, and Fletcher 2014; Lareau 2011; Willems et al. 2005).

To date, there has been little advancement of a more general theory that could be used to explain what kind of doctor-patient encounter happens. One promising theoretical perspective is cultural health capital. Cultural health capital is a derivative of Bourdieu's (1984) general cultural capital perspective. Cultural health capital is defined as a "specialized collection of cultural skills, attitudes, behaviors and interactional styles that are valued, leveraged, and exchanged by both patients and providers during clinical interactions" (Dubbin et al. 2013, p. 113). While the cultural health capital perspective holds promise as a way to understand differences in medical encounters, it has not been empirically tested with quantitative measures (Peck and Denney 2012). Chang, Dubbin, and Shim (2016), Dubbin et al. (2013), Khawaja and Mowafi (2006), Madden (2015), Schneider-Kamp (2020), and Shim (2010) have all examined qualitatively how cultural health capital influences the doctor-patient interactions and the patient's health outcome after their medical visit. Overall, this research suggests that cultural capital is related to both interactions and outcomes. This research aims to fill this gap in quantitative knowledge by providing an exploratory empirical test of the influence of cultural health capital on the type of medical encounter. More specifically, the primary research question is: does patient cultural health capital influence the type of doctor-patient interaction that occurs, and in particular, the likelihood of patient-centered care?

Literature Review and Theory

Doctor-Patient Encounters

The doctor-patient relationship begins in the doctor's office, specifically the examination room during a health interview conducted by the doctor where the patient discloses their medical

history and their current medical condition or reason for their physician visit (Peck and Denney 2012; Roter and Hall 2006). Three different goals of medical encounters include 1) gathering information; 2) communication; 3) developing and maintaining a therapeutic relationship (Peck and Denney 2012). While common goals exist amongst medical encounters, the communicative process to reach these goals varies across doctor-patient interactions. In other words, the ways doctors and patients interact to achieve these goals results in different types of encounters (Goold and Lipkin 1999). A common typology used to differentiate the types of medical encounters is presented by Roter and Hall (2006). They highlight the control and influence by both the patient and physician to create the typology with the following categories: paternalistic, consumeristic, collaborative, and default (Roter and Hall 2006).

Figure 1 shows the four different types of doctor-patient interactions by categories of communication control (Roter and Hall 2006). Paternalistic encounters are characterized by doctors dominating the communication and decision-making for their patients while patients are passive participants with little to no control (King et al. 2014; Peck and Conner 2011). This is the type of encounter Talcott Parsons (1985) described as necessary for any therapeutic relationship. The opposite of a paternalistic encounter is the consumeristic encounter. The consumerist encounter is characterized by the patient having high influence and the physician having low control. In this type of encounter, a cooperative physician fulfills patient demands for information and services. In the mutually collaborative encounter, both physicians and patients have influence and control in the relationship, each bringing different perspectives and strengths. The decision-making is shared compared to the previous two encounter types. Both the consumeristic and the collaborative encounters are characterized by the patient exerting influence and control in the encounter. Thus, the consumeristic and collaborative encounter types

can be referred to more generally as patient-centered encounters. The final category is the so-called default encounter. This type of encounter occurs when neither the doctor nor the patient exercises influence or control. The default category is rare and can occur when the patient and the provider have a relationship that cannot be negotiated, meaning there are unclear goals between the doctor and the patient and both have defaulted responsibility and influence to the other (Roter and Hall 2006). An example of a default interaction is the unlikely situation of when a patient files a medical malpractice suit against their primary doctor but continues treatment under this doctor (Peck and Conner 2011; Roter and Hall 2006).

---------- FIGURE 1 ABOUT HERE ----------

The Shift Away from Paternalistic Encounters

Despite more than a century of physician professional dominance, the nature of the relationship between doctors and their patients changed. To use Roter and Hall's (2006) typology, the typical doctor-patient relationship is no longer paternalistic, however, this type of encounter still happens though more encounters are patient-centered (i.e., collaborative and consumeristic using the Roter and Hall [2006] typology). Researchers have focused on several factors to account for the change. One set of factors involves more general societal-level changes; the other, more medical and health-related.

At the societal level, both long-term trends and recent changes in society, in general, and in the health care delivery system, in particular, have led many to argue that the autonomy and power of the medical profession have eroded. Importantly, at the societal level, there has been a

slow, but gradual shift in the bases of authority. Evidence suggests that Americans no longer acquiesce without question to traditional authority (Haug and Lavin 1983; Janowitz 1988).

In addition to the general societal trend of decreasing acceptance of authority, it has been argued that medicine has experienced long-term de-professionalization and proletarianization. According to the de-professionalization view, medicine has been losing its prestige and the trust that accompanies it because of an eroding monopoly of access to medical information, increasing specialization within medicine, the emergence of self-help groups, and the declining image of physicians as fiduciaries for patients (Haug 1988). According to the proletarianization view, the medical workplace is becoming more bureaucratic, and physicians are subject to the same rules and hierarchical constraints as other workers (McKinlay and Arches 1985). These general changes have lowered the professional prestige of physicians. The professional prestige of physicians is one of the primary underlying factors that Talcott Parsons identified as foundational for a paternalistic therapeutic relationship ([1951] (1964)). These societal factors weakened the prestige of physicians and thus the basis for asymmetry in the doctor-patient encounter.

In addition to the social factors described above, changes within the healthcare delivery system have contributed to the transition away from paternalistic encounters. The most important changes in the last several decades in medical practice occurred with the rise of managed health care. A managed healthcare organization serves a defined population, with a defined set of healthcare providers, is integrated such that the financing and delivery of healthcare are the responsibility of the organization, and finally, contains costs by using salaried physicians, capitation, or other payment mechanisms that transfer risk to physicians (Goold and Lipkin 1999), as well as containing costs through drug formularies, limitations on the number and type

of specialists available under a plan, and utilizing primary care providers as gatekeepers to other services (Kerr et al. 1999). The effect of managed healthcare structures is that patients are often left to wonder if doctors are caring for them, the health plan, or their jobs and incomes.

Patient-Centered Care in the Medical Encounter

While there are drawbacks to some of the long-term changes in the healthcare delivery system, the emergence and emphasis on patient-centered care has been a generally positive change. Patient-centered encounters by and large result in positive outcomes for patients (for example, see Bell et al. 2002; Malat 2006). The positive outcomes for patients are attributed to patient involvement and a positive therapeutic relationship with the physician (Robinson et al. 2008). A feature of the positive, patient-centered therapeutic relationship is that physicians view symptoms and treatments through their patients' eyes (Kaba and Sooriakumaran 2007) which focuses on the patient as a person rather than the symptoms they are exhibiting (Verlinde et al. 2012).

Previous studies have demonstrated that the likelihood of having a patient-centered encounter varies by some patient and physician characteristics, such as sociodemographic characteristics, attitudes, and situational factors. For example, patient income and educational attainment (social class) are associated with the type of medical encounter that happens. As noted earlier, upper-class and middle-class individuals tend to have more positive (i.e., patient-centered) encounters when compared to their lower-class or working-class counterparts (King, Jennings and Fletcher 2014; Lareau 2011; Willems et al. 2005). Patients who hold higher educational attainment tend to receive patient-centered care at a higher rate than those who have less education (Beisecker 1990; Schouten and Meeuwesen 2006).

The race-ethnicity and gender of the doctor and patient are also associated with differences in the conduct of the medical encounter (Beisecker 1990; Bertakis and Azari 2011; Fenton et al. 2019; Willems et al. 2005). Racial and ethnic minorities tend to receive differentiated (i.e., lower quality and non-patient-centered) medical care compared to their white counterparts (Hasnain-Wynia and Baker 2006). Physician's race also matters; patients report higher levels of satisfaction with their care and more participatory encounters when seen by same-race physicians (Cooper et al. 2003; Peck and Denney 2012). Women have reported poorer health compared to men in terms of symptoms and missed workdays (Peck and Denney 2012). Historically, women have been misdiagnosed more often when seen by male physicians (Verbrugge and Steiner 1981). Peck and Denney (2012) found a smaller percentage of women's medical encounters were physician-centered when the physician also was a woman.

Cultural Capital and Cultural Health Capital

Cultural capital theory is a more general theory that could be used to explain what kind of doctor-patient encounter happens and why. Bourdieu ([1980] (1990)) conceptualized cultural capital as a subtle way to explain how power is transferred in society, and how social classes are maintained (Cultural Learning Alliance 2019). Capital is an asset—something that is owned or possessed. In the Marxian tradition, capital refers to economic assets such as wealth, monetary savings, income, and real property (Headey and Wooden 2004; Marx 1959). Bourdieu, by contrast, focused on the subtle role of cultural capital to explain inequalities and class status. Bourdieu defined cultural capital as familiarity with the dominant cultural codes in a society (Bourdieu 1984). These cultural codes are often referred to as "high culture" and represent the most valued cultural forms in a society (Bennett et al. 2009). Bourdieu argued that families pass

on cultural capital to their children by providing access to literature, the theater, dance and music, museums, galleries, and so forth. Access to these valued cultural forms gives these children a comparative advantage, especially in the educational system, which helps them reproduce their privileged social and economic position (Bourdieu 1984).

Cultural health capital theory is derived from cultural capital theory. The idea of cultural health capital was first introduced by Shim (2010). She conceptualized cultural health capital as "a specialized form of cultural capital that can be leveraged in health care contexts to effectively engage with medical providers" (Shim 2010; p. 3). Cultural health capital refers to a set of skills that allow patients to utilize both verbal and non-verbal communication to efficiently relay medically pertinent information to providers. In other words, cultural health capital is a specific type of cultural capital that can be communicated between doctors and patients (Chang et al. 2016). Madden (2015) adds to Shim's (2010) definition by dividing cultural health capital into four distinct categories: 1) medical vocabulary; 2) communication skills; 3) self-discipline; and 4) prioritizing future health outcomes. Dubbin et al. (2013) note that cultural health capital can include symptom and medication knowledge about health conditions and health communication skills.

Having high cultural health capital benefits the patient as it is an investment into their long-term health and doctor relationships, thus increasing the likelihood of a patient-centered encounter (Schneider-Kamp 2020). Patients who are knowledgeable of medical topics, medical vocabulary, and relevant health care information, who communicate health-related information, and who take a proactive stance in their healthcare have a more rewarding medical experience (Shim 2010). Furthermore, studies show that doctors who have effective, clear, and concise communication skills along with patients who have some knowledge about the medical field

have better patient-related health outcomes (Verlinde et al. 2012). Having *intimate knowledge of medical vocabulary* specifically gives individuals better access to and understanding of new health information provided by the patient's physician (Shim 2010). This is important during the doctor-patient encounter. The use of cultural health capital, especially knowledge of medical vocabulary, during doctor-patient interactions, allows patients to accrue benefits from their knowledge and skills related to the medical field (Madden 2015). When patients activate such cultural health capital during the doctor-patient interaction, patients feel that the doctor better understands their condition (Bertakis and Azari 2011).

Obviously, not all patients have the same amount of cultural health capital or can activate it as effectively. Disparate levels of cultural health capital can perpetuate healthcare inequalities via misdiagnoses and differentiated access to healthcare (Shim 2010). For example, patients with lower socioeconomic status are less likely to have the level of cultural health capital required to communicate their healthcare needs to their physicians; those with higher socioeconomic status and high levels of education likely have greater resources for communicating effectively with their health care provider (Missinne et al. 2014). Middle-class children are found to be coached by parents to ask questions in doctor encounters when compared to working-class or lower-class children (Gage-Bouchard 2017; Lareau 2011). This coaching from parents starts the children's ideas that they can have a productive conversation with doctors and achieve better health outcomes, which could contribute to social class differences in approaches to the doctor-patient encounter during adulthood with those raised in middle-class families having more skills and knowledge to use with doctors than lower-class individuals, who might not have the skills needed to ask the questions or know what questions to ask of their doctors (Willems et al. 2005).

The research on social class and doctor-patient interaction is mixed, however. Verlinde et al. (2012) found no difference in patient's communication style when conducting an extended literature review of doctor-patient interaction styles when looking at the lower-class and working-class when compared to middle-class individuals. This support for no difference could be due in part to the different health concerns from each class. In Verlinde et al.'s (2012) study, individuals from the lower class were found to have more discussions with their doctors about smoking and an unhealthy diet compared to patients from the middle class who were visiting the doctor for an annual physical. By comparison, Willems et al. (2005) show that lower-class individuals have more miscommunication with their doctors than middle-class individuals due to lack of education and social skills. Overall, research has shown that those with higher socioeconomic status and higher levels of education have the means to communicate effectively with their healthcare provider (Missinne et al. 2014).

Studies find that doctor-patient communication also varies by patient's race, with more effective communication with white patients than with racial-ethnic minority patients (Schouten and Meeuwesen 2006). However, these differences by race can result from cultural differences in the communication process (Cooper et al. 2003). Racial-ethnic minority patients may be less assertive and less effective in communicating health concerns in the medical encounter compared to their white counterparts in some cases (Schouten and Meeuwesen 2006). In addition, a patient's ability to activate the cultural health capital they do have can be influenced by the physician's stereotypes of the patients. Unequal distribution of cultural health capital following racial (and class) lines can reinforce physician's interpretations of patient's health information and behaviors (Shim 2010) which in turn can limit the patient's power and influence during the medical encounter.

When it comes to the effects of patient's gender within doctor-patient encounters, women tend to ask the most questions when compared to men, giving women better knowledge about their treatment options (Bertakis and Azari 2011). Women have been surpassing men in their educational attainment and are therefore better equipped to activate their cultural health capital (Bertakis and Azari 2011; Brewer et al. 2020). The more questions that the patient asks, the better the understanding of treatments and treatment options (Bertakis and Azari 2011). Fenton et al. (2019) found that women were more likely to make at least one request of their doctor for medical care needs as determined by the patient. This kind of communication between doctor and patient initiates patient-centered care.

Hypothesis

In brief, cultural health capital refers to medical- and health-specific cultural skills, behaviors, and interactional styles that are valued as assets by both patients and physicians in medical encounters (Shim, 2010). In practical terms, these include skills such as knowledge of medications and health conditions, the ability to communicate that knowledge, and cues of favorable social and economic status (Dubbin, Chang, and Shim 2013). These skills and resources are essential for patients and providers to effectively communicate and interact with one another. This study examines whether the type of doctor-patient encounter differs by the level of patient cultural health capital. I hypothesize that patients with higher levels of cultural health capital will have more collaborative, patient-centered encounters with their physician than patients with lower levels of cultural health capital.

Method

Sample

To address the hypothesis outlined above, the current research study utilizes data from a study of doctors and patients in a large family medicine practice over an 11-month period from 2007 and 2008. Seventeen physicians and 224 of their patients agreed to participate in the study. Other types of clinicians (e.g., nurse practitioners and physician assistants) were excluded from the study. To qualify for the study, patients had to be a minimum of 18 years of age, understand English, and have a scheduled appointment with their primary care physician.

Data collection

Researchers obtained consent from doctors at the family medical practice before recruiting patient-participants. On the day of their doctor's appointment, patients were approached by the research team to participate. Patients were approached by trained interviewers for a pre-medical visit questionnaire (located in the Appendix). This questionnaire assessed general patient demographics, the reason for the patient's visit, and the patient's health status. Directly following the medical examination, patient-participants completed a post-visit questionnaire to assess what occurred during the visit and their satisfaction with their visit.

All encounters were audiotaped and then coded by trained coders using the Roter Interaction Analysis System (RIAS). RIAS is a method of coding doctor-patient interaction visits (Roter and Larson 2002). RIAS is one of the most commonly used methods for coding doctor-patient interactions (Thompson 2001). The RIAS system identifies every statement or complete thought expressed during the visit (by both patients and providers) into one of 34 mutually exclusive and exhaustive categories. Categories relating to the medical tasks of the visit include information-giving, counseling, and question-asking (both close and open-ended) in the areas of

a medical condition, therapy, prevention, and lifestyle behaviors. Related to the socioemotional aspects of the visit are categories of personal remarks, approval, laughter and joking, agreement, and statements of worry, support, legitimation, empathy, reassurance, concern, and partnership. The coded categories reflect the content of the dialogue between patients and doctors during medical encounters. RIAS also allows for the identification and classification of verbal exchanges from the audiotape rather than audio transcriptions. Coding directly from audiotapes allows for tonal elements of the exchange to be coded.

Coders were trained in the RIAS coding system using recordings of doctor-patient encounters collected in the pilot phase of the study. These pilot encounters are not used in the analysis. Research staff closely monitored training sheets and occasionally provided additional training when necessary. Audiotapes were coded once the research staff was confident the coders understood the coding categories and the operational definitions. Subjective interpretation by coders remains a possibility, however. To minimize the possibility of subjective interpretation, the research teams used multiple coders who coded the encounters independently, performed periodic checks to ensure the coders were staying within the training guidelines, and after completing the initial coding, the research staff analyzed the codes to determine the consistency between coders. To evaluate the interrater agreement the research team randomly selected 10 percent of the audiotapes for double coding. To evaluate interrater agreement, kappa (κ) statistics were calculated for a random selection of categorical variables. The κ statistic evaluates the agreement between two or more independent evaluations and the extent of agreement that could be expected beyond chance (Peck and Denney 2012). The research team also calculated the intraclass correlation coefficients (ICC) for numeric variables. The ICC measures agreement between coders when observations are scaled (Gwet 2010; Peck and Denney 2012). Agreement

between coders was good; the κ statistic values ranged from 0.92 to 0.98, and the ICC values ranged from 0.88 to 0.97 (Peck and Denny 2012).

Dependent Variable

The dependent variable is the type of doctor-patient encounter. The encounter type is a binary variable indicating whether the encounter was patient-centered (coded 1) or not. The binary variable was created from the RIAS coding categories using cluster analysis. Cluster analysis identifies groups of observations that are similar (i.e., clustered) based on a specified number of variables. In the context of the current study, the cluster analysis identifies encounters that are similar (clustered) along the dimensions of influence and control in the medical encounter. The encounters were clustered on six variables, three of which measured patient communication patterns and three that measured physician communication patterns. The variables are biomedical information giving, psychosocial exchanges, and question asking (both closed and open-ended). Each variable is a ratio of all talk to minimize the effect of the length of the medical encounter. For example, the variable 'biomedical information giving by the patient' is the ratio of the number of biomedical information statements and utterances by the patient to the total number of statements and utterances made by the patient. These three categories of variables describing communication in the medical encounter are the most often used to measure the dimensions of the encounter that reflect the patient-centered versus physician-centered continuum of interaction styles (Stewart et al., 2014). The cluster analysis produced observations with two categories: physician-centered and patient-centered encounters.

Table 1 shows the six variables used to characterize the amount and type of statements and questions in the medical encounter by the encounter type (physician-centered versus patient-centered). The numbers are ratios and represent the number of statements or questions of a given type to the total amount of talk. Note that the ratios were calculated on the full sample of 224 patients, not the subset of observations used in the current analysis. A fuller discussion of the cluster analysis is presented elsewhere (see Peck and Conner 2011). Physician-centered encounters are characterized by high levels of biomedical talk (25% of the encounter is the patient giving biomedical information to the physician) and relatively little psychosocial discussion by doctors or patients (18% and 12%, respectively). Patient-centered encounters, by contrast, are characterized by lower relative levels of biomedical talk by the patient or the physician and higher levels of psychosocial talk by the patient and the physician. In addition to the categories representing the ratio to all talk in the encounter, two other variables are presented in Table 1 to underscore the differences in the types of encounters. These variables are 'physician verbal dominance' and 'physician communication control.' The physician verbal dominance is a simple measure of the ratio of all physician statements to all patient statements. A value greater than 1.0 indicates that physicians talked more than patients. A value less than 1.0 indicates that patients talked more than physicians. A value of 1.0 indicates an equal amount of talk by both. Physician communication control is a cumulative measure of the controlling statements and directives from the physician and patient. It is a ratio of physician to patient statements. A value greater than 1.0 indicates that physicians made more directive statements and asked more questions. A value less than 1.0 indicates that patients made more directive statements and asked more questions. In general, physicians talk more than patients in an encounter. In physician-centered encounters, doctors talk about 40 percent more than patients,

while in patient-centered encounters, doctors talk about 24 percent more than patients (Peck and Conner 2011). The nature of the talk, however, is different as indicated by the communication control ratios. In patient-centered encounters, doctors give directives and ask questions about 50 percent more than patients (Peck and Conner 2011). However, in physician-centered encounters, doctors give directives and ask questions almost 80 percent more than patients do (Peck and Conner 2011).

---------- TABLE 1 ABOUT HERE ----------

Independent Variable

The primary independent variable is patient cultural health capital. The construct of cultural health capital is operationalized using the Rapid Estimate of Adult Literacy in Medicine (REALM). REALM measures the patient's medical terminology pronunciation (Arozullah et al. 2007). REALM consists of terminology that is routinely used in primary care settings and chosen from written material commonly given to patients (health pamphlets, prescriptions, etc.) (Davis et al. 1998). The REALM score provides an assessment of the patient's medical literacy (Murphy et al. 2020). The REALM measure has a total of sixty-six words. The words are in ascending syllable order and word difficulty (Murphy et al. 2020). The total time it takes to administer the test is approximately two to three minutes (Davis et al. 1998). The REALM survey instrument is presented in Figure 2.

---------- FIGURE 2 ABOUT HERE ----------

The test itself isolates participants for the pronunciations of the words as the interviewer records their responses on individual test forms. Participants are given five seconds for each word before being asked to move on to the next word in the same list. The test is complete when the participant has either pronounced all sixty-six words or can no longer pronounce words correctly after given the chance to look back over the test to spot any recognizable words (Murphy et al. 2020). After the test is administered, the number of correctly pronounced words is summed to create the raw score. The raw score is the number of words patients pronounce correctly out of sixty-six.

REALM has been validated through the work of Arozullah et al. (2007). Arozullah et al. (2007) tested REALM against other shortened versions of the original sixty-six words using multiple non-overlapping cohorts at different hospitals. After examining 9 differing models of the variations of REALM, the measure was validated to show literacy rates in patients. These nine variations include shortened versions of the REALM test, auditory instead of pronunciation, and the use of words not included in the REALM test (Arozullah et al. 2007).

REALM is an ordinal variable ranging from 0-66. In the current study, the mean score for participants is 62.5. For this analysis, I recode REALM into a dichotomous variable, where one represents a perfect score of sixty-six and zero indicates a non-perfect score.

Control Variables

The analyses control for both patient and physician characteristics. All patient and physician characteristics are pulled from the pre-medical encounter questionnaire. In terms of patient characteristics, I control for patient's education, income, and frequency of doctor visits. Patient education contains four categories: less than high school, high school, some college, and

college and beyond. The category of less than high school is the reference category in the analyses.

Patient incomes are categorized in the questionnaire into five different categories. The categories are less than $10,000, $10,001 to $20,000, $20,001 to $30,000, $30,001 to $40,00, and $40,001 and above. For this analysis, I have combined less than $10,000 a year, $10,001-$20,000, and $20,001-$30,000 into one category which will serve as the reference category. The categories of $30,001-$40,000 and $40,001 and above I recoded into another category. These two income categories approximately reflect the median nationwide household income in the year prior to data collection, which took place in 2007 and 2008. More specifically, the median household income in the United States in 2006 was $48,451 (Webster Jr. and Bishaw 2007).

The frequency of doctor visits in a medical setting is measured by the number of self-reported visits the patient has had with the doctor in the last six months. This variable ranges from 1 to 5 reported visits.

Patient age ranges from 31 to 83 and is treated as a continuous variable. Sex refers to the patient's biological sex, male and female. Female is the reference category for the analysis. The patient's race has been recoded into two distinct categories: white (reference category) and non-white. The non-white category includes Black individuals and individuals identifying as Hispanic, American Indian, and other.

I also control for doctors' sex, race, and the number of years of medical practice. The doctor's years of medical practice ranges from 1 year to 21 years of medical practice and is treated as a continuous variable. Doctor sex refers to the physician's biological sex, male or female. Female doctors are the reference category for this analysis. Doctor race was collapsed into two categories: white (reference category) and non-white.

Analytical Strategy

I use binary logistic regression to assess the relationship between cultural health capital and the binary measure of the type of medical encounter. The data are hierarchical, that is, patients are nested within physicians. As such, the observations are not independent. All analyses present corrected standard errors using the Huber White sandwich correction (Freedman 2006).

This study starts by showing the descriptive statistics for study participants, both patients, and physicians. In addition, I present frequencies and percentages for the primary dependent and independent variables, patient-centered encounter, and REALM score, respectively. Finally, I present the findings from the binary logistic regression models. I present the results as a series of models starting with the unadjusted (bivariate) relationship between the REALM score and having a patient-centered encounter. The final model presents the type of encounter adjusting for both patient and physician characteristics.

Results

Table 2 shows the descriptive statistics of the sample of 105 patients included in the analyses. There are more women (54.29%) in the sample than men (45.71%). The majority of the participants are white (67.62%), while 29.52% of the sample population is Black. The other racial/ethnic categories, Hispanic White, American Indian, and the Other category, each comprise less than 1 percent of the sample. The race variable is measured as a dichotomous variable (white/non-white) in the logistic regression models. About one-third (32.4%) of the participants are non-white.

The study participants are relatively old, with a mean age of 60.4. Age is modeled as a continuous variable in the analyses; the table presents the variable by categories. The largest category for participant age is the 51-60-year-old age group (39.05%). The smallest age category is the 31-40-year-old age group, making up 9.52% of the participants. The 41-50-year-old age category makes up 10.48% of the participants. The 61-70-year-old participant category makes up 26.67% of the population. Finally, 14.29% of the sample is in the 71-80-year-old age category.

The patient participants are mostly high school educated or higher. Almost 90% (87.6%) of the patients graduated from high school. In fact, almost half (42.86%) have at least some college education. Approximately a quarter (24.8%) of the patients have a college degree or more.

---------- TABLE 2 ABOUT HERE ----------

Table 3 shows the descriptive statistics for the doctors in the study sample. There are 17 physicians who saw the 105 patients in the study. The physician sample is mostly male (58.8% vs 41.2% respectively). The physicians are overwhelmingly white (82.4%). Less than a fifth of the physicians are non-white (17.6%). Slightly over half (52.9%) of physicians have been practicing for 8 or more years.

---------- TABLE 3 ABOUT HERE ----------

Descriptive statistics for the dependent and primary independent variable are presented in Table 4. About three-quarters of the encounters (75.2%) are patient-centered, while a quarter

(24.8%) are not patient-centered. For the analyses, I dichotomized the REALM score into those who made a perfect score versus all others. Precisely a third (33.3%) of the patients made a perfect score on the REALM literacy measure. Conversely, two-thirds (66.7%) of the patients made a score below a perfect score.

---------- TABLE 4 ABOUT HERE ----------

Table 5 shows a series of binary logistic regression models assessing the effects of REALM score on the likelihood of having a patient-centered encounter. The table presents odds ratios and standard errors. The odds ratios represent the probability of having a patient-centered encounter over the probability of not having a patient-centered encounter. In the context of the current study, an odds ratio greater than 1.0 represents higher odds of having a patient-centered encounter; an odds ratio less than 1.0 represents lower odds of having a patient-centered encounter; an odds ratio of 1.0 represents no difference in the odds of having a patient-centered encounter.

---------- TABLE 5 ABOUT HERE ----------

Model 1 shows the unadjusted or binary model examining the relationship between REALM score and patient-centered encounter. Recall, the category of REALM scores of 0-65 (less than a perfect score) is used as the reference category. Model 1 shows that a higher score on the REALM measure is associated with a lower odds of having a patient-centered encounter (OR=0.47). The odds ratio of 0.47 can also be represented as a percentage difference using the

simple formula: (1-OR). The unadjusted model shows that patients with a perfect REALM score have 1-.47 or 53% lower odds than patients with a less than perfect REALM of having a patient-centered encounter. This finding does not support the hypothesis. Note that the odds ratios for the REALM variable is not statistically significant. In fact, few of the coefficients in any of the models are statistically significant. Statistical significance is directly related to sample size. The sample size used in the current analyses is very small (N=105). With such a small sample, the study is not powered to detect small differences. As such, I focus on the general patterns of the findings, rather than statistical significance.

It could be the case that the relationship between REALM and type of encounter is suppressed by other variables. To assess the net effect (after controlling for patient and physician variables), I add patient control variables (Model 2) and physician control variables (Model 3). The results are generally the same as the bivariate model: a higher REALM score is associated with a lower likelihood of having a patient-centered encounter (although the REALM score variable is not statistically significant). Interestingly, the variables representing patient education and income are significantly related to having a patient-centered encounter. Higher levels of education and income are positively associated with having a patient-centered encounter (Model 2). None of the physician control variables are related to the type of encounter (Model 3).

Model 4 shows the binary logistic regression of patient-centered care by REALM when holding all patient and doctor control variables constant. The impact on the relationship between REALM and encounter type is unchanged. When controlling for all patient and physician variables, the REALM score is inversely related to having a patient-centered encounter (OR=0.45, n.s.). As in the previous models, patient education and income are positively

associated with having a patient-centered encounter. Likewise, the physician control variables are not related to the encounter type.

Figure 3 shows the predicted probabilities of having a patient-centered encounter from the unadjusted analysis (Model 1) and the fully adjusted model with all patient and physician control variables (Model 4). Predicted probabilities are the estimated probability (sometimes expressed as risk) of some outcome (e.g., patient-centered encounter) in one group of people (those with a perfect REALM score) compared with a referent group (those with less than a perfect REALM score) (Muller and MacLehose 2014). The graph depicting the predicted probabilities is another way of illustrating or representing the focal relationship between REALM score and encounter type. Odds ratios from binary logistic regression are often used to assess the relationship between a variable(s) and a binary outcome (as presented above). Odds ratios, however, are difficult to comprehend directly and are often mistakenly interpreted as the probability or relative risk of an event occurring. Relative risk is the probability of the event occurring in one group versus another. Using odds ratios as an estimate of relative risk or probability is fraught with problems, namely odds ratios overestimate relative risk (McNutt et al. 2003). This is especially the case when the event is relatively common, which is generally defined as the probability of the event greater than 0.10 (Davies, Crombie, and Tavakoli 1998). Figure 3 is a graphical depiction of the probability of having a patient-centered encounter rather than the odds ratio of a patient-centered encounter.

Unlike the tables, the graphs present the predicted probabilities for only the unadjusted and fully adjusted models. Like the odds ratios presented in the tables, the graphs in Figure 3 show there are no statistically significant differences of having a patient-centered encounter between patients who have a perfect REALM score and those who do not. In the unadjusted bivariate model, patients with a perfect REALM score have a 65.71% probability of having a

patient-centered encounter, compared to 80% probability for patients with less than a perfect REALM score. The fully adjusted model shows the same general patterns.

---------- FIGURE 3 ABOUT HERE ----------

Discussion and Conclusion

Increasingly, doctor-patient encounters are more patient-centered. Patient-centered care aims at providing medical care in accordance with the patient's needs and preferences (Dubbin et al. 2013). One of the goals of patient-centered care is for doctors and patients to have a collaborative partnership. Indeed, patient-centered care is considered the golden standard of care by the Institute of Medicine (Epstein and Street 2011).

Despite being the gold standard of care, many encounters are not collaborative in the ways endorsed by the Institute of Medicine. This study aimed to understand why some encounters are not patient-centered. Previous qualitative research demonstrated an association between cultural health capital and the type of medical encounter (Dubbin et al. 2013). The current study hypothesized that cultural health capital (as measured by medical literacy) is positively associated with having a patient-centered encounter.

The hypothesis was not supported. In fact, findings from the current study suggest that higher levels of medical literacy are associated with a lower probability of having a patient-centered encounter. While the hypothesis is not supported, the findings are congruent with findings from other quantitative studies. For example, Cooper et al. (2003) found that communication does not affect the doctor-patient interaction.

The findings from the current study must be interpreted with a degree of caution. That is, before discounting the role cultural health capital may play in the doctor-patient encounter, several limitations of the current study must be considered. The small sample size (105 observations) is perhaps the biggest limitation of this study. Given the extremely small sample size, this research should be considered exploratory. Future studies should expand the patient sample size so that more accurate inferences to the larger population can be made.

Another data-related limitation is the age of the dataset. The data used in this study were collected more than a decade ago (2007-2008). The distribution of patient-centered encounters could have changed since then. It could be the case that more encounters are patient-centered given the long-term trends. Likewise, it is feasible the relationships between the key variables have changed. As such, it is possible that encounters today look different than they did a decade or so ago.

Another limitation of the current study is the measure of cultural health capital. An individual's health literacy—and specifically the pronunciation of medical terms as measured by the REALM score—is not a complete measure of a person's cultural health capital (Shim 2010). The concept of cultural capital encompasses not only having a medical vocabulary, but having actual medical communication skills, self-discipline, and the ability to prioritize around future health outcomes (Madden 2015). The ability to pronounce medical terms is only a small part of the larger concept of cultural health capital. Future research should include the additional components of cultural health capital, especially of elements related to non-verbal cues. Future studies also should look at other possible influences on the likelihood of having a patient-centered encounter.

In conclusion, patient-centered care is the current gold standard of care. It takes the patients' needs and cultural values into consideration. The healthcare field has been moving in the direction of increasing participation by patients since Parsons first observed and described the paternalistic doctor-patient model of interaction in the 1950s. Research that uncovers the factors that facilitate patient-centered care stands to improve the healthcare delivery system in general and the care for individual patients.

Tables and Figures

Figure 1: Types of Doctor-Patient Encounters

	Provider Control and Influence	
Patient Control and Influence	Low	High
Low	Default	Paternalistic
High	Consumeristic	Mutually Collaborative

Source: Roter and Hall (2006)

Figure 2: Rapid Estimate of Adult Literacy in Medicine (REALM)

Patient ID: _____	DOB: _____	Date: _____
List 1	List 2	List 3
Fat ____	Fatigue ____	Allergic ____
Flu ____	Pelvic ____	Menstrual ____
Pill ____	Jaundice ____	Testicle ____
Dose ____	Infection ____	Colitis ____
Eye ____	Exercise ____	Emergency ____
Stress ____	Behavior ____	Medication ____
Smear ____	Prescription ____	Occupation ____
Nerves ____	Notify ____	Sexuality ____
Germs ____	Gallbladder ____	Alcoholism ____
Meals ____	Calories ____	Irritation ____
Disease ____	Depression ____	Constipation ____
Cancer ____	Miscarriage ____	Gonorrhea ____
Caffeine ____	Pregnancy ____	Inflammatory ____
Attack ____	Arthritis ____	Diabetes ____
Kidney ____	Nutrition ____	Hepatitis ____
Hormones ____	Menopause ____	Antibiotics ____
Herpes ____	Appendix ____	Diagnosis ____
Seizure ____	Abnormal ____	Potassium ____
Bowel ____	Syphilis ____	Anemia ____
Asthma ____	Hemorrhoids ____	Obesity ____
Rectal ____	Nausea ____	Osteoporosis ____
Incest ____	Directed ____	Impetigo ____
List 1 Score _____	List 2 Score _____	List 3 Score _____

TOTAL RAW SCORE _____ READING LEVEL: _____

Source: Murphy et al. (2020)

Table 1: Descriptions of the Patterns of Communication by Type of Doctor-Patient Encounter

	Physician Centered (n=53)	Patient-Centered (n=171)	Overall (n=224)
Ratio to all talk			
Patient Biomedical Information Giving	0.25	0.18	0.22**
Patient Psychosocial Talk	0.12	0.16	0.14**
Patient Question Asking	0.01	0.02	0.01
Physician Biomedical Information Giving	0.21	0.15	0.18**
Physician Psychosocial Talk	0.18	0.23	0.21**
Physician Question Asking	0.08	0.07	0.08
Communication Dominance			
Physician Verbal Dominance	1.40	1.24	1.30†
Physician Communication Control	1.79	1.54	1.65*

†p<.10,*p<.05, **p<.01, ***p<.001

Table 2: Patient Demographic Characteristics of the Study Sample. (N=105)

Variable	Frequency	Percent
Sex		
Men	48	45.71
Women	57	54.29
Race		
White	71	67.62
Black	31	29.52
Hispanic White	1	0.95
Hispanic Black	1	0.95
American Indian	1	0.95
Other	1	0.95
Age (mean= 60.4)		
31-40	10	9.52
41-50	11	10.48
51-60	41	39.05
61-70	28	26.67
71-80	15	14.29
Education		
Less than HS	13	12.38
HS Degree/GED	21	20.00
Some College	45	42.86
College Grad	17	16.19
Graduate School	9	8.57

Table 3: Doctor Demographic Characteristics of the Study Sample. (N=17)

Variable	Frequency	Percent
Sex		
Men	10	58.8
Women	7	41.2
Race		
White	14	82.4
Non-White	3	17.6
Age		
40 years and below	9	52.9
41 years and older	8	47.1
Doctor's years Practiced		
Less than 8 years	8	47.1
8 or more years	9	52.9

Table 4: Descriptive Statistics for Key Study Variables (N=105)

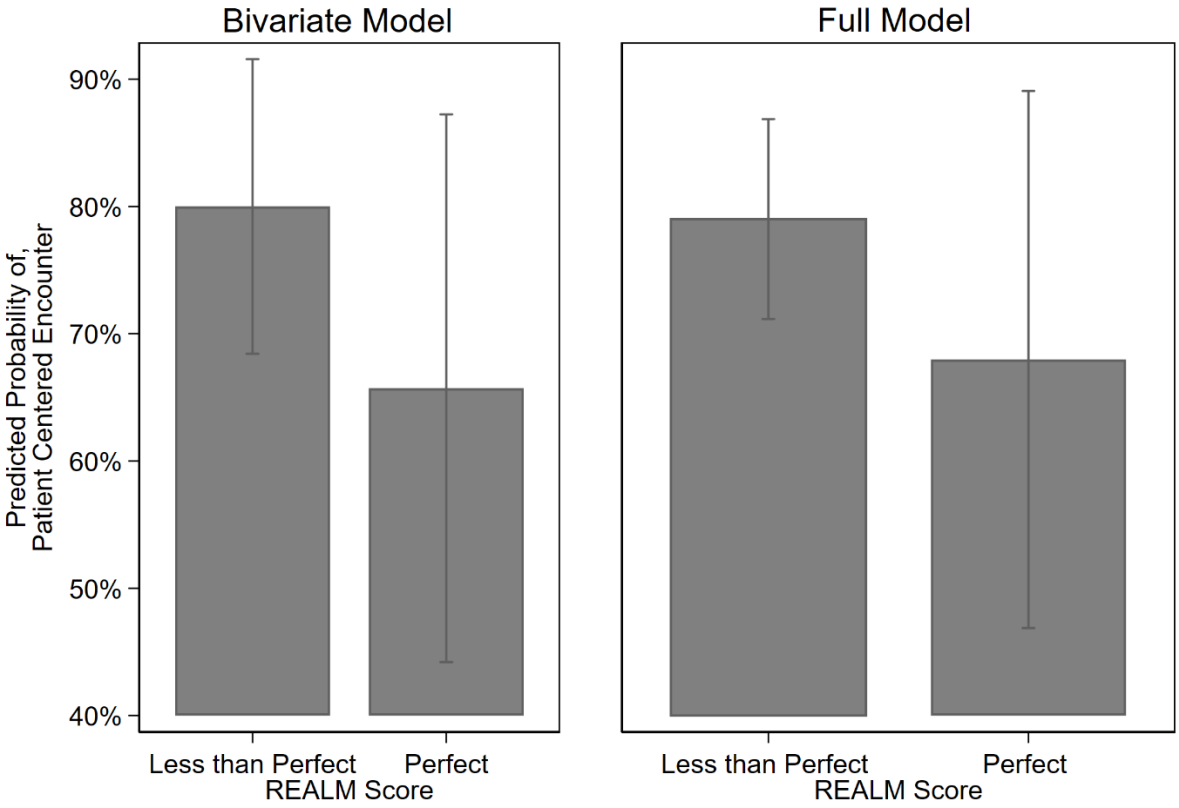
Variable	Frequency	Percent
Dependent Variable:		
Patient- Centered Care		
Yes	79	75.2
No	26	24.8
Primary Independent Variable:		
REALM Score		
0-65	70	66.7
66	35	33.3

Table 5: Binary Logistic Regression Models Predicting Patient-Center Encounters (N=105)

	Model 1		Model 2		Model 3		Model 4	
	OR	SE	OR	SE	OR	SE	OR	SE
REALM Score	0.47	0.23	0.39	0.24	0.51	0.25	0.45	0.32
Patient Variables								
Education								
< High School (ref)								
High School			7.34+	8.63			5.23	6.14
Some College			3.26	2.53			2.12	1.57
College Degree			49.85**	62.55			35.14**	44.32
Graduate Degree			1.15	0.99			1.13	0.92
Income								
< $30,000 (ref)								
$30,000 +			12.16***	8.32			9.82***	6.21
# Doctor Visits			1.32	0.25			1.33	0.29
Sex - Male			0.53	0.29			0.56	0.38
Race								
White (ref)								
Non-white			1.29	0.98			1.34	1.17
Patient Age			1.04	0.02			1.03	0.02
Physician Variables								
Sex - Male					0.41	0.28	0.47	0.31
Race								
White (ref)								
Non-white					0.23	0.24	0.33	0.28
Years of Medical Practice					0.97	0.04	0.98	0.05

Note: OR = odds ratio; SE = standard error
+ p<.1, * p<.05, ** p<.01, *** p<.001

Figure 3: Predicted Probabilies from Model 1 and Model 4



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Appendix: Survey Instrument

Patient Expectations and Satisfaction with Care

ID _____ **Date** _____

I'd like you to tell me how necessary the following things are for your doctor to do today.

How necessary is it for the doctor to…	**Absolutely Necessary**	**Somewhat Necessary**	**Unsure**	**Somewhat Unnecessary**	**Absolutely Unnecessary**	**Refused**
1. be familiar with your medical record before walking into the room.	1	2	3	4	5	12
2. ask how your condition is affecting your life and family.	1	2	3	4	5	12
3. ask about your personal health habits.	1	2	3	4	5	12
4. ask about previous treatments you've tried for your condition.	1	2	3	4	5	12
5. prescribe a new medication. (if 1 or 2 ask open-ended question)	1	2	3	4	5	12
6. examine your eyes, ears, nose and/or throat.	1	2	3	4	5	12
7. listen to your lungs (breathing) with a stethoscope.	1	2	3	4	5	12
8. check your abdomen for tenderness or organ enlargement.	1	2	3	4	5	12
9. refer you to a specialist. (if 1 or 2 ask open-ended question)	1	2	3	4	5	12
10. perform a rectal exam.	1	2	3	4	5	12
11. listen to your heart with a stethoscope.	1	2	3	4	5	12
12. order tests. (if 1 or 2 ask open-ended question)	1	2	3	4	5	12
13. perform or order some other procedure _____	1	2	3	4	5	12

You said that you wanted a referral/new medication/test during your visit today.

What kind of MEDICATION would you like to receive? (refer to question 5)

1	0	Allergy
1	0	Antibiotics/Anti-fungal
1	0	Anti-Smoking
1	0	Arthritis
1	0	Blood pressure
1	0	Changed Prescription
1	0	Cholesterol
1	0	Diabetes
1	0	Heart
1	0	Pain
1	0	Psychiatric
1	0	Sleeping Agent
1	0	Topical
1	0	Unspecified

Is there a specific medicine that you had in mind?
1. _____ 2. _____ 3. _____

What kind of SPECIALIST would you like to be referred to? (refer to question 9)

1	0	Allergist	1	0	Dietician
1	0	Audiologist	1	0	Endocrinologist
1	0	Cardiologist	1	0	Eye
1	0	Dentist	1	0	GI
1	0	Dermatologist	1	0	Hematologist
1	0	Neurologist	1	0	Unspecified
1	0	Orthopedist			
1	0	Podiatrist			
1	0	Psychiatrist			
1	0	Rheumatologist			

What kind of TEST would you like to receive? (refer to question 12)

1	0	Blood	1	0	Colon Cancer
1	0	Blood sugar	1	0	EKG
1	0	Breathing	1	0	Exercise Stress
1	0	CATscan/MRI	1	0	GI
1	0	Cholesterol	1	0	Hepatitis/Liver
1	0	Hearing	1	0	Urine
1	0	HIV	1	0	X-Ray _____
1	0	PSA	1	0	Unspecified
1	0	Rectal			
1	0	Vision			

Now I would like to ask you about your current health.

<table>
<tr><td colspan="2">1. In general, would you say your health is:
1 Excellent
2 Very Good
3 Good
4 Fair
5 Poor</td></tr>
<tr><td colspan="2">The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?</td></tr>
<tr><td>2. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf
1 Yes, limited a lot
2 Yes, limited a little
3 No, not limited at all</td><td>3. Climbing several flights of stairs
1 Yes, limited a lot
2 Yes, limited a little
3 No, not limited at all</td></tr>
<tr><td colspan="2">During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</td></tr>
<tr><td>4. Accomplished less than you would like
1 Yes
2 No</td><td>5. Were limited in the kind of work or other activities
1 Yes
2 No</td></tr>
<tr><td colspan="2">During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?</td></tr>
<tr><td>6. Accomplished less than you would like
1 Yes
2 No</td><td>7. Didn’t do work or other activities as carefully as usual
1 Yes
2 No</td></tr>
<tr><td colspan="2">8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?
1 Not at all
2 A little bit
3 Moderately
4 Quite a bit
5 Extremely</td></tr>
</table>

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks-	
9. Have you felt calm and peaceful? *1* All of the time 2 Most of the time 3 A Good bit of the time *4* Some of the time 5 A Little of the time 6 None of the time	10. Did you have a lot of energy? *1* All of the time *2* Most of the time *3* A Good bit of the time *4* Some of the time *5* A Little of the time *6* None of the time
11. Have you felt downhearted and blue? 1 All of the time *2 Most of the time* 3 A Good bit of the time 4 Some of the time *5* A Little of the time 6 None of the time	12. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)? 1 All of the time 2 Most of the time 3 Some of the time 4 A little of the time 5 None of the time

Here are a few questions about yourself. Please answer to the best of your ability.

1. Including today, how many times have you seen your VA Primary Care Physician in the last six months?

0	1	2	3	4	5+	777	888

2. The race you consider yourself?

Hispanic White	1
Hispanic Black	2
American Indian	3
Black	4
Asian	5
White	6
Unknown	7
Other	8
Refused	12

3. What is the highest level of education you have completed? (select one)

Eighth grade or less	1
Some high school	2
Completed high school or GED	3
Some college	4
Completed college	5
Graduate school	6
Don't Know	11
Refused	12

4. What is your current marital status? (select one)

Married	1
Divorced or Separated	2
Widowed	3
Never married	4
Don't Know	11
Refused	12

5. With whom do you live? (Select all that apply)

No one	1	0	12
Wife or significant other	1	0	12
Child or grandchild	1	0	12
Parent	1	0	12
Friend	1	0	12
Other:	1	0	12

6. Do you identify with a particular religion? (select one)

Yes	1
No	2
Don't Know	11
Refused	12

7. If yes, with which religion do you identify? (select one)

Catholic	1
Protestant	2
Jewish	3
Moslem	4
Other: _____	5
None	6
Don't Know	11
Refused	12

8. What is the range of your annual household income from all sources? (select one)

Under $10,000	1
$10,000 - $20,000	2
$20,001 - $30,000	3
$30,001 - $40,000	4
over $40,000	5
Don't Know	11
Refused	12

We are interested in knowing how familiar patients are with these medical terms.
Would you please read the following words out loud?

List 1	List 2	List 3
fat _____	**fatigue** _____	**allergic** _____
flu _____	**pelvic** _____	**menstrual** _____
pill _____	**jaundice** _____	**testicle** _____
dose _____	**infection** _____	**colitis** _____
eye _____	**exercise** _____	**emergency** _____
stress _____	**behavior** _____	**medication** _____
smear _____	**prescription** _____	**occupation** _____
nerves _____	**notify** _____	**sexually** _____
germs _____	**gallbladder** _____	**alcoholism** _____
meals _____	**calories** _____	**irritation** _____
disease _____	**depression** _____	**constipation** _____
cancer _____	**miscarriage** _____	**gonorrhea** _____
caffeine _____	**pregnancy** _____	**inflammatory** _____
attack _____	**arthritis** _____	**diabetes** _____
kidney _____	**nutrition** _____	**hepatitis** _____
hormones _____	**menopause** _____	**antibiotics** _____
herpes _____	**appendix** _____	**diagnosis** _____
seizure _____	**abnormal** _____	**potassium** _____
bowel _____	**syphilis** _____	**anemia** _____
asthma _____	**hemorrhoids** _____	**obesity** _____
rectal _____	**nausea** _____	**osteoporosis** _____
incest _____	**directed** _____	**impetigo** _____

Finally, I may want to follow up this visit with one phone call to ask a few more questions, may I call you at home? Is your number the same as we confirmed before? What would be a good time?

PERMISSION: Yes___1____ No___0____ Time:_____

END OF PRE-VISIT INTERVIEW

I'd like to ask you about the visit you just had with your doctor. I want to remind you that NONE of this information will be given to your doctor or anyone else here at the VA Medical Center not involved with the study.

Please answer the following questions regarding your visit to the doctor.

How would you rate your physician's performance on the following:	**Excellent**	**Very Good**	**Good**	**Fair**	**Poor**	**Don' t Know**	**Refused**
1. Telling you everything; being truthful, up front and frank; not keeping things from you that you should know	1	2	3	4	5	7	8
2. Greeting you warmly; calling you by the name you prefer; being friendly, never crabby or rude	1	2	3	4	5	7	8
3. Treating you like you're on the same level; never "talking down" to you or treating you like a child	1	2	3	4	5	7	8
4. Letting you tell your story; listening carefully; asking thoughtful questions; not interrupting you while you're talking	1	2	3	4	5	7	8
5. Showing interest in you as a person; not acting bored or ignoring what you have to say	1	2	3	4	5	7	8
6. Warning you during the physical exam about what he/she is going to do and why; telling you what he/she finds	1	2	3	4	5	7	8
7. Discussing options with you; asking your opinion; offering choices and letting you help decide what to do;	1	2	3	4	5	7	8
8. Encouraging you to ask questions; answering them clearly; never avoiding your questions or lecturing you	1	2	3	4	5	7	8
9. Explaining what you need to know about your problems, how and why they occurred, and what to expect next	1	2	3	4	5	7	8
10. Using words you can understand when explaining your problems and treatment; explaining any technical	1	2	3	4	5	7	8

Here are some more questions about the visit you just made.

In terms of your satisfaction how would you rate each of the following?	**Excellent**	**Very**	**Good**	**Fair**	**Poor**	**Don't Know**	**Refused**
1. How long you waited to get an appointment	1	2	3	4	5	7	8
2. Convenience of the location of the office	1	2	3	4	5	7	8
3. Getting through to the office by phone	1	2	3	4	5	7	8
4. Length of time waiting at the office	1	2	3	4	5	7	8
5. Time spent with the person you saw	1	2	3	4	5	7	8
6. Explanation of what was done for you	1	2	3	4	5	7	8
7. The technical skills (thoroughness, carefulness, competence) of the person	1	2	3	4	5	7	8
8. The personal manner (courtesy, respect, sensitivity, friendliness) of the	1	2	3	4	5	7	8
9. This visit overall	1	2	3	4	5	7	8

1. Did anyone else go with you into the examining room?	1 Yes	0 No	7 Refused	
2. (If Yes) Who came with you?	*1* Spouse	*2* Relativ	*3* Friend	*7* R
3. (If Yes) Was this person with you and your doctor for the entire visit?	1 *Yes*	0 No	7 R	

Now I'd like to ask you about the relationship you have with your doctor.

Please indicate how much you agree or disagree with these statements.	**Totally Agree**	**Agree**	**Neutral**	**Disagree**	**Totally Disagree**	**No Response**
1. I doubt that my doctor really cares about me as a person	1	2	3	4	5	7
2. My doctor is usually considerate of my needs and puts them first	1	2	3	4	5	7
3. I trust my doctor so much I always try to follow his/her advice	1	2	3	4	5	7
4. If my doctor tells me something is so, then it must be true	1	2	3	4	5	7
5. I sometimes distrust my doctor's opinion and would like a second one	1	2	3	4	5	7
6. I trust my doctor's judgements about my medical care	1	2	3	4	5	7
7. I feel my doctor does not do everything he/she should about my medical care	1	2	3	4	5	7
8. I trust my doctor to put my medical needs above all other considerations when treating my medical	1	2	3	4	5	7
9. My doctor is well qualified to manage (diagnose and treat or make an appropriate referral) medical	1	2	3	4	5	7
10. I trust my doctor to tell me if a mistake was made about my treatment	1	2	3	4	5	7
11. I sometimes worry that my doctor may not keep the information we discuss totally private	1	2	3	4	5	7

1. If there were a choice between treatments, would this doctor ask you to help make the decision? 1 Definitely yes 2 Probably yes 3 Unsure 4 Probably no 5 Definitely no
2. How often does this doctor make an effort to give you some control over your treatment? 1 Very often 2 Often 3 Sometimes 4 Rarely 5 Never
3. How often does this doctor ask you to take some of the responsibility for your treatment? 1 Very often 2 Often 3 Sometimes 4 Rarely 5 Not at all

This is the last set of questions; we are almost finished. Before your visit today, you indicated some items you would like your doctor to do or order. Please tell me about the care you received today.

Did the doctor…	**Did this occur?**			
	No	**Yes**	**DK**	**R**
1. familiarize him/herself with your medical	0	1	7	8
2. ask how your condition is affecting your life and family?	0	1	7	8
3. ask about your personal health habits?	0	1	7	8
4. ask about previous treatments you've tried for your condition?	0	1	7	8
5. Prescribe a new medication?	0	1	7	8
6. (If yes) What medication did you receive?				
A. Allergy	0	1	7	8
B. Antibiotics/Anti-fungal	0	1	7	8
C. Anti-Smoking	0	1	7	8
D. Arthritis	0	1	7	8
E. Blood pressure	0	1	7	8
F. Changed Prescription	0	1	7	8
G. Cholesterol	0	1	7	8
H. Diabetes	0	1	7	8
I. Heart	0	1	7	8
J. Pain	0	1	7	8
K. Psychiatric	0	1	7	8
L. Sleeping Agent	0	1	7	8
M. Topical	0	1	7	8
N. Unspecified	0	1	7	8
O. Other	0	1	7	8
P. Did you Receive	0	1	7	8
Q. Did you Receive	0	1	7	8
R. Did you Receive	0	1	7	8
Did You Receive ( )?				
7. Examine your eyes, ears, nose and/or	0	1	7	8
8. listen to your lungs (breathing) with a stethoscope?	0	1	7	8
9. check your abdomen for tenderness or organ enlargement?	0	1	7	8
10. refer you to a specialist?	0	1	7	8

Did the doctor…	Did this occur?			
	No	**Yes**	**DK**	**R**
11. (If Yes) What specialist were you referred to?				
A. Allergist	0	1	7	8
B. Audiologist	0	1	7	8
C. Cardiologist	0	1	7	8
D. Dentist	0	1	7	8
E. Dermatologist	0	1	7	8
F. Dietician	0	1	7	8
G. Endocrinologist	0	1	7	8
H. Eye	0	1	7	8
I. GI	0	1	7	8
J. Hematologist	0	1	7	8
K. Neurologist	0	1	7	8
L. Orthopedist	0	1	7	8
M. Podiatrist	0	1	7	8
N. Psychiatrist	0	1	7	8
O. Rheumatologist	0	1	7	8
P. Unspecified	0	1	7	8
Q. Other	0	1	7	8
Did You Receive ( )?				
12. perform a rectal exam?	0	1	7	8
13. listen to your heart with a stethoscope?	0	1	7	8
14. order a test?	0	1	7	8
15. (If Yes) What tests did you receive?				
A. Blood	0	1	7	8
B. Blood sugar	0	1	7	8
C. Breathing	0	1	7	8
D. CATscan/MRI	0	1	7	8
E. Cholesterol	0	1	7	8
F. Colon Cancer	0	1	7	8
G. EKG	0	1	7	8
H. Exercise Stress	0	1	7	8
I. GI	0	1	7	8
J. Hepatitis/Liver	0	1	7	8
K. Hearing	0	1	7	8
L. HIV	0	1	7	8
M. PSA	0	1	7	8
N. Rectal	0	1	7	8
O. Vision	0	1	7	8

Did the doctor…	Did this occur?			
	No	**Yes**	**DK**	**R**
P. Urine	0	1	7	8
Q. X-Ray	0	1	7	8
R. Unspecified	0	1	7	8
S. Other	0	1	7	8
Did You Receive ( )?				
16. perform or order some other procedure (specify):	0	1	7	8
17. Was there anything else you wanted from the doctor that he/she did not do? (specify):	0	1	7	8
18. During the visit with the doctor did you think of anything else you wanted that you didn't tell us about before the visit?	0		1	
19. If YES, what else did you decide you wanted?	0	1	7	8
A. _____	0	1	7	8
B. _____				

Thank you very much for participating in our study. We will mail your consent form to your home address.

END OF INTERVIEW