

The Burden of Alzheimer's Disease on Cultural Integrity: Prevalence and Incidence of
Alzheimer's Disease within the Latino Health Paradox

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Abstract

In the past two decades there have been large expansions in the research of Alzheimer's Disease (AD) in order to understand the mechanistic pathway of the progressively neurodegenerative disease as well as to develop viable method to treat the fatal disease because there is currently no absolute cure that can stop the deterioration in cognitive function. Even more significant is the influence of the Alzheimer's Association to drive research focused on understanding the epidemiology of the prevalence, incidence and survival frequency of AD across ethnic and culturally diverse populations in order to develop functionally successful prevention programs and community services (Alzheimer's Association, 2008). This is particularly in part to the organizations announcement that on the topic of culture, race or ethnicity the differences in AD that are observed must be due to environmental as well as cultural factors and corresponding experiences. Thus, there is a need to review research which has focused on shedding light on how AD may interact with the Latino Health Paradox.

Introduction

The behavioral symptoms and cognitive decline that were once associated with the normal process of aging are being put into question and becoming more associated with chronic mental disorders such as Alzheimer's Disease (AD) (Tyas, Snowdon, Desrosiers, Riley, & Markesbery, 2007). There is also a developing area of research that has implicated the potential for vascular risk factors to function as co-morbidities as well as modulators of the pre-clinical symptoms and the onset of AD (Snowdon, D. A., Greiner, L. H., Mortimer, J. A., Riley, K. P., Greiner, P. A., & Markesbery, W. R., 1997). As a neurodegenerative disease of interest, AD poses a great risk for the aging population and is becoming more ethnically relevant as the Hispanic elderly population continues to grow rapidly with the prospective of accounting for 20% of the elderly population by 2020 (Brookmeyer, R., Gray, S., & Kawas, C., 1998).

The concerns for the Latino community have become more critical since the completion of the Hispanic Health and Nutrition Examination Survey which was analyzed and used to frame an epidemiological phenomenon known as the Latino Health Paradox (Markides & Coreil, 1986; Morales, Lara, Kington, Valdez, & Escarce, 2002). It is characterized by the finding that Hispanics in low-socioeconomic status (low-SES) have a much better health outcome that is comparable to their more affluent white equivalent rather than other ethnicities of similar low-SES. This has been found to be maintained across important health indicators as life-expectancy, mortality from heart disease, infant mortality, mortality from types of cancer and other measures of functional health. The initial reaction may indicate that Hispanics are doing well but there is still the need to take into account the psychosocial factors that encompass their culture because these protective factors may not last the test of time and they may not be so easily translated to later generations in the U.S.

The observed elevated risk factors for poor health outcome and the persistence of significant barriers in health care access for Latinos residing in the United States in light of the Latino health paradox are enough to motivate concern to understand the cultural factors that account for good health outcome in some public health domains. The following literature review is designed to address research that has studied Latinos (interchangeable with Hispanic for this review) in the context of AD and the Latino Health Paradox in order to identify the extent to which research has been done in the following areas of immediate concern:

1. The incidence and mortality of Latinos who develop AD and cultural perceptions of the mental health disorder.
2. AD and the implication for diabetes, as a prevalent vascular risk factor among the Latino population
3. The investigation of psychosocial stressors and coping mechanism that may assist in preventing development of AD.
4. Is there evidence for the concern in the development of culturally-competent educational services that function to promote preventative steps in the development of AD among the Latino community?

The present expectation is that AD is of significant concern to the scientific research field and there is representation of Latinos in on-going studies relating to health outcome. There is also the belief that community services and outreach programs are beneficial in the treatment and support in caring for elderly Latinos with AD. However, the social awareness of AD and the distribution of knowledge on the disease may not be so accessible to ethnic groups and presents a major failure in preventative medicine.

Ethnic Epidemiology of Alzheimer's Disease

On the topic of the incidence of AD and how it pertains to Latinos, Helzner, Scarmeas, Cosentino, Tang, Schupf, and Stern (2008) address this concern in a population-based longitudinal study in the wake of estimates of AD survival ranging from 3 to 9 years post-diagnosis. This study is unique in the sense that it looked at populations that started dementia-free in order to follow the progression of incident disease in a non-bias manner to accurately estimate mortality and survival. They focused on a multiethnic population that was collected in the Washington Heights Inwood Columbia Aging Project (WHICAP) which consisted of two population-based cohorts of Medicare enrollees pertaining to Northern Manhattan.

Participants and Measures

Participants were randomly selected based on ethnicity (Hispanic, non-Hispanic black, non-Hispanic white) and age (range 65 to 74, and 75+). Sample consisted of 323 cases of AD for which follow-up data was available and who were dementia-free at baseline. The sample consisted of 70% women, 55% Hispanic of Caribbean ancestry and 33% African American. The longitudinal nature of the study for follow-up of participants had a mean of 4.1 (up to 12.6) years and measured for ethnicity-specific age, sex, education, and major known co-morbidities (heart disease, hypertension, diabetes, cancer and stroke). Possible or probable AD was diagnosed using established criteria and associated dementia through DSM-III revised criteria. Physical and neurological assessments were administered at baseline and subsequent follow-up periods at 18-month intervals. Mortality was determined by interviews at follow-up points and by reference to the National Death Index.

Results, Limitations and Strengths

Participants had a mean age of 87 at initiation of the study and mortality was highest among white (non-Hispanic) and mostly more years of education. Hispanics had the least years of education (5.1 years). Diabetes and hypertension were the only co-morbidities independently associated with shorter lifespan. Hispanics had the longest survival time post-diagnosis (7.9 years) compared to non-Hispanic whites (3.7 years) and African Americans (4.8 years) with no evidence for gender differences. This result was interesting since Hispanics had the highest incidence of diabetes. There are implications for coping style and family networks in the Hispanic culture functioning as protective affect to offset AD mortality.

The strengths of the study are outweighed by the limitations. The follow-up intervals may have been too long and underestimated the onset of AD. There is also no heterogeneity in the representation of the Hispanic sample. Also, there was no assessment of the cause of death of participants over the course of the study. Was it due to incident AD and any associated co-morbidities? This is important in providing validity to the diagnoses of AD in the participants at *post mortem*.

Knowledge of Alzheimer's Disease Among the Ethnic Elderly

Previous studies have demonstrated that while AD may be prevalent in ethnic groups, they are more likely to receive delayed diagnosis of AD after living with late-state symptoms and as a result seek less services focused on early intervention and treatment (Gallagher-Thompson, Aréan, Coon, Menéndez, Takagi, & Haley, 2000; Hinton, 2002). By providing access to information about AD, it would be expected that Latinos could comprehend the benefit of seeking treatment or appropriate support. There have been suggestions that even though there is a valid biomedical definition for AD, it is not surprising that ethnic minorities may rely on a

folk-based definition to explain the disease process (Dilworth-Anderson & Gibson, 2002). This is seen in studies that observed the stigma of AD associated with “a punishment from God” by members of a specific cultural context (Gallagher-Thompson et al. 2000). The study by Ayalon and Areán (2004) sought to investigate the ethnic group differences in knowledge about AD with a close-ended AD questionnaire and to identify how level of education and level of acculturation function to modulate what ethnic groups know about AD.

Participants

Participants were selected based on age (55 years or older) and fluency in either English or Spanish. The ethnic groups consisted of African Americans (n=30), Asian (n=30), Latino (n=37) and Anglo (n=96) with the inclusion of both genders for each groups. Recruitment was from four public areas of primary-care clinics in the San Francisco area.

Measures

Each ethnic group was asked to complete a 17-item, true-false questionnaire to assess knowledge of AD based on nature of the disease, consequences and the cure. Acculturation was defined as years residing in the US and years of speaking English which were self-reported during an interview along with educational level, marital status, place of birth, and age. Ethnicity was obtained from a multiple-choice question similar to the US Census.

Results

The Anglo group was significantly more knowledgeable of AD however low levels of AD knowledge were seen across all ethnic groups. The older participants across all ethnic groups were not proficient in knowledge about the prevalence, etiology, diagnosis, and financial

coverage of AD. For the Latino ethnic group, neither of the defined elements of acculturation was associated with knowledge of AD. It is possible that in old age the AD symptoms are normalized and to some extent stigmatized to the point that ethnic groups may not recognize their state of progressive mental health decline. Although this study was able to observe the relatively low levels of knowledge of AD in an ethnically diverse sample, there was neither intention nor an effort made to identify factors that could account for this deficit in the knowledge of AD, which could have benefited in the development of the expectations for an educational campaign. Also, future research should increase the sample size and employ a more comprehensive acculturation assay.

Coping Style as a Ethnic-specific Protective Factor Against AD

The Latino Health Paradox has implications for certain protective factors being significant in promoting some of the observed positive Latino health outcomes in select clinical diseases. Also, the loss of these protective factors with increased acculturation suggests the need to study the type of psychosocial responses that are present in recently immigrated Latinos. This could help in determining the efficacy of protective factor in the Latino population to buffer against a severe mental disorder such as AD.

At least three representative investigations have shown the significance of event-specific coping research among a 1st generation immigrant sample (Padilla, Cervantes, Maldonado, & Garcia, 1987), identify dominant coping styles for stress effect on mental health in a comparison of Mexican citizens and Mexican-American samples (Farley, Galves, Dickinson, & de Jesus Diaz Perez, 2005), and categorize the specific behavioral and neuropsychiatric symptoms associated with AD in a Hispanic sample (Ortiz, Fitten, Cummings, Hwang, & Fonseca, 2006).

Event-specific Coping

The Padilla et al. (1987) investigation sought to observe the type of psychosocial stressors experience by Mexican and Central American immigrants in the context of stressors associated with immigration to the US in order to address their mental health needs. It was specifically focused on looking at general methods of behavioral coping in life domains (marriage, family life occupation, household finances) and more importantly the ethnically-specific coping and perceived stressors.

The participants consisted of 62 respondents (Mexican, n= 32; Central American, n= 30) who were recruited from high density areas of immigrant populations with equal numbers of males and females and who were living in the US for less than 10 years. The mean age was 33.8 years and 56% were married. Measurements consisted responses obtained from an in-depth open-ended stress and coping interview. The questions first asked for general stress and coping methods used by all Latinos (intra-ethnic perspective) followed by more personal perceived and experienced stressors and the coping methods used. Depression and anxiety also assessed using a symptom checklist, which like instruments were previously translated to Spanish.

The results showed that the three most significant stressors were (1) the inability to communicate in English, (2) difficulties in acquiring employment, and (3) their undocumented status in the US. Although the respondents were able to provide general and or personal coping behavioral solutions they rarely took their own advice. Their undocumented status was also increased by the stress of leaving family and friend back at country of origin (77% male concern, 93% female concern). Even in the mists of so many stressors, 40% reported that they have great concern for ensure that their children benefit from a good education. Social support through

families and friends were identified as good source buffer stressors but this study didn't explore the extent of the social network.

Active Coping Style in Mexican Americans

The study by Farley et al. (2005) investigated the lack of sufficient research on the association between stress-coping styles, stress and the health quality of life for Mexican, Mexican-American and non-Hispanic Whites. They particularly asked if Hispanics have healthier stress-coping styles than non-Hispanics. Participants consisted of a total of 288 Hispanic and non-Hispanic White individuals recruited at a community/migrant health center in an agriculturally dominant town and asked to complete surveys to assess stress, coping style and overall composite mental and physical health. Results showed that non-Hispanic Whites and Mexican-Americans were more likely to have chronic health disease such as metabolic syndrome, diabetes and heart disease compared to Mexican citizens. The Mexican citizens had high indicators for active coping styles such as positive reframing, denial and religion. There was also a trend for acculturation where Mexican-Americans and non-Hispanic Whites shared similar properties in coping style and no differences in risk factors for chronic diseases compared to Mexican sample. These results support the outcomes of the Latino Health Paradox. The limitations in the study are in the lack of sufficient data on characteristics of the participants and that results may not be applicable to an affluent population because of uniformly low-SES of sample.

Behavioral and Neuropsychiatric symptoms in Hispanics with AD

Ortiz et al. sought to characterize and compare neuropsychiatric symptoms in a sample of 367 community-dwelling Hispanics (n= 70, n=19 males, n=73 females) and non-Hispanics (n=230)

patients with AD. The average level of education in the Hispanic group was 8.12 years and with mean age of 73.0 years. Subjects were recruited from the San Fernando Valley in Southern California through two different Memory Disorder Clinic sites. It is already understood that neuropsychiatric symptoms are common in AD but the goal of the research was to observe the distribution of such symptoms among an ethnic population.

Subjects were assigned caregivers to contact daily and report behavioral symptoms. Other pertinent measures consisted of mental health as well as level of acculturation which accounted for generation, length of type in the U.S. and age at arrival in the U.S. AD and dementia were independently determined with the use of approved standard diagnostic criteria and the DSM-IV standards for dementia. Results showed low levels of education in the Hispanic subjects, 81% prevalence of low English proficiency and low US acculturation. Hispanics with AD expressed significantly more behavioral symptoms, including apathy, anxiety, irritability, depression, aberrant motor behavior and some degree of agitation. There are implications for the elderly Hispanic population to be at a greater risk of neuropsychiatric and behavioral symptoms due to the mediating effect of education level. Limitations of the study include the small size, lack of random selection of subjects and not representative of all Hispanics across U.S. There is also concern that the caregivers level of education may have influence the level risk associated with Hispanic AD subjects.

Vascular Risk Factors and Diabetes as Co-morbidities of Alzheimer's Disease

The pathway which underlies pre-clinical symptoms and onset of AD is still under dispute particularly with the finding that vascular lesion have been observed in AD and may further fade the differentiation of vascular dementia and AD type dementia. Within the past

decades, the work performed by Jose Luchsinger has focused on studying the association that vascular risk factors, specifically diabetes, can have in modulating or co-existing with AD related neuropsychiatric symptoms and early onset of cognitive decline.

Aggregation Effect of Vascular Risk Factors Increase AD Risk

In a study done by Luchsinger, Reitz, Honig, Tang, Shea, and Mayeux in 2005, there was an initial interest to understand whether there may be a compounding effect of accumulating vascular risk factors on risk of developing AD. The study consisted of 1, 138 participants who were initially dementia-free at baseline (mean age = 76.2 years) and were followed for an average of 5.5 years in a longitudinal observation. Participants were from a list of Medicare recipients 65 years or older who resided in the Manhattan area. The sample was 69.8% women, 33.1% African-American, 44.4% Hispanic and 22% White. Methods for assessment included in-person interviews for general health and cognitive function, medical history, and comprehensive neurological examination.

The study measured specifically for diabetes, hypertension, heart disease and current smoking as vascular risk factor of interest at 18-month intervals. In the comparison of incident *possible* and *probable* AD, in the presence of 3 or more vascular risk factors there was a significant increase in the risk of incidence of AD. Diabetes was among the strongest risk factor and the cluster of hypertension and heart disease also showed notable increase in risk of AD onset. This suggests that the association of diabetes with AD may not be by chance and by be explained by the co-existing with other co-morbidities for an aggregation effect. However, there was no indication of AD being ethnically specific. The only limitation was that diabetes was self-reported and no sub-clinical assessment was used to verify.

Association of Depression with Vascular Risk Factors to Increase incidence of AD

On the topic of depression, there is much speculation whether it has any associations with vascular risk factors in the development of AD symptoms. With the finding that vascular risk factors have a modulating effect on AD incidence (Luchsinger et al., 2005), there is interest in seeing whether vascular and cerebrovascular risk factors (e.g. stroke) may function as the link between depression and AD. The work by Luchsinger, Honig, Tang, & Devanand (2008) was conducted with this objective in mind. The study sample consisted of 526 elderly individuals from New York City who were dementia-free at baseline and followed for a longitudinal study for 5 years. Demographic distribution of participants was 31.2% African-American, 48.3% Hispanic and 20.5% White. Measures of depression, AD and dementia were collected using established criteria and surveys. Data on vascular risk factors (same as those measured in Luchsinger et al. (2005)), stroke and ethnicity were all collected by self-report.

Among the major findings, results indicated that 114 cases among the 526 sample were individuals with incidence of AD and were older, more likely to be Hispanic, and likely to have diabetes than the person without AD. However, the association of depression and AD was not explained by a history of vascular risk factors or stroke. This has been followed by the possibility that depression may be part of AD cluster of symptoms. The significant findings of this study indicate that in this first account of community-based epidemiological investigation, depression symptoms prelude dementia in the elderly. Certain important limitations include the dependence of vascular disease and stroke data purely on self-report.

Borderline Diabetes Enough to Increase Risk of AD and Dementia

Previous research associated with linking vascular risk factors with AD incidence have focused on the dependence of the future development of the risk factors, which may not be the case for diabetes. The association of diabetes with AD is still controversial because of the previously categorized association with vascular dementia. However the events that underlie the diabetes pathway, specifically the onset of insulin resistance have been implicated with a direct effect on the brain (Yaffe, Kanaya, Lindquist, Simonsick, Harris, Shorr, & et al., 2004).

A recent study conducted by Xu, Qiu, Winblad, and Fratiglioni (2007), pursued the theory that even the most preliminary indicators of the development of diabetes may be enough to increase the risk of dementia and AD. The longitudinal study with 3-month and 9-month time points included a cohort of 1,173 dementia- and dementia-free individuals with the criteria of 75 years or older. Measure consisted of 3 follow-up sessions to diagnose dementia and AD according to DSM-III revised criteria. Demographic characteristics such as age, education and other vascular factors were also collected at every time point in the study. Borderline diabetes was defined as a random blood plasma glucose level below diabetes. Data supports the notion that the association of elevated borderline diabetes and a ~70% increase in enhanced AD and dementia risk is significant and independent of the future onset of diabetes. The study is however limited in the decision to randomly assign a blood glucose level to define borderline diabetes and there was no effort to measure insulin level to verify diabetes.

The Dissemination of Services and Resources to Support Latinos with AD

Effective Recruitment Strategies

One of the most prevalent observations in the studies that seek to offer knowledge as well as services to the Latino population is that Latinos may not always be willing to continue in

longitudinal studies or take part in studies at all. This may be associated with their undocumented status or a case of lack of knowledge of the availability of such resources. The work done by Gallagher-Thompson, Singer, Depp, Mausbach, Cardenas, & Coon (2004) to improve the development and success of educational and mental health support and treatment has been significant in identifying which modes of recruitment are best suited for attracting the Latino population.

The sample consisted of a total of 310 caregivers (195 Latino and 105 Caucasian). Measures screened for overall participation any three forms of recruitment: non-profession (health fairs), professional (community agencies) and advertisements. Results indicated that Caucasian caregivers were more likely to be retained across all recruitment strategies. Latino caregiver only had similar retention values in the professional strategy for recruitment. Methods included either active-treatment or support by telephone. Further measures were obtained from the caregiver to account for stress levels, mental health and diagnosis of dementia. The observation that Latinos responded more to the professional method of recruitment suggest that there may be an element of trust involved in the process which must be accounted for to retain high levels of Latino involvement in studies.

El Portal Alzheimer's Project

After the consideration of the prevalence of AD and associated diabetes and dementia in the Latino elderly, it is important to consider whether any significant strides have been made to provide easy access to support centers and the local community in dealing with AD to underserved Latino population. One of the most important movements to make education and treatment for prevention of AD onset has been the El Portal Alzheimer's Project which is located

in Los Angeles (Aranda, Villa, Trejo, Ramirez, & Ranney, 2003). The initial success of this project was assessed with the frequency with which 900 adults used the resources, specifically the bilingual helpline. Only 273 actually came into the clinic to receive the face-to-face in-take interview for further assessment.

Intake and referral were valuable measures in determining the efficacy of the El Portal Alzheimer's Project. 80% of the callers to the helpline were women and had a family-member with dementia. Children to young adults were more likely to call on behalf of one of their family members and speak in English. It is significant to say that 91% of the respondents reported this as their first attempt to reach the L.A. Alzheimer' Association and 54% reported no previous use of community services. Also, 64% said stated that they were unaware of these facilities. Most of the people who were admitted were women and of Latino origin. There was a 93% report of severe impairment in function of daily life of the demented family member. Those who have become frequent attendees at El Portal report high use of case management (89%), counseling (87%), information (74%), and educational training (67%). This report on the success of the El Portal Alzheimer's Project in addressing the needs of the Latino caregivers in the local community with demented relatives shows one of the most remarkable programs to decrease the barriers to sufficient and effective health access in the area of mental health.

Discussion

The following review has thoroughly reviewed only a selection of research literature which has made discoveries that have increased the awareness for the consideration of culturally-specific factors as well as the impact of psychosocial burden in the context of ethnically relevant mental health. There is evidence for the lack of knowledge of AD among the Latino population

which poses as a significant barrier to adequate health access and preventative support treatment. The Latino Health Paradox seemed to be applicable to the low incidence of Latino mortality and the increase survival time post-diagnosis which reveals the benefits of the social support and active coping strategies that Latino employ to buffer the burden of daily stressors on physical and mental health.

On several accounts, Latinos have been shown to have a greater risk of developing dementia and AD and these chronic effects are enhanced by diabetes. The body of research that has focused on defining the coping styles of Latinos has been vital in making the biomedical field more aware of more variables that have to be measured or accounted for in the context of ethnically diverse studies. The existence of El Portal Alzheimer's Project through the Alzheimer's Associations is a good indicator that influential organizations relevant to healthcare and the community are becoming vital in disseminating knowledge and advocating research on chronic mental illness. It is even more significant to recognize the emphasis for the need to take into account the fact that there is a large cultural component of availability and access to healthcare that has to be addressed to meet the needs of one of the largest ethnic minorities that is rapidly growing and in need of sufficient intervention programs and health care in old age.

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Running head: DISCRIMINATION AND HEALTH IN LATINOS

Discrimination and Health in Latinos: An analysis of studies on perceived racial/ethnic discrimination and health outcomes in Latino populations in the US.

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ABSTRACT

Previous studies of ethnic minorities in the US highlight the evidence linking discrimination and its effects on health in those populations. Recently, increasing attention has been focused on establishing how discriminatory experiences based on Latino race/ethnicity affect the physical and mental health of Latinos. In addition, research has started to focus on how discrimination affects the social determinants of health for Latinos as well. The current project reviews ten empirical articles examining discrimination in community based to regional studies highlighting the consequences of discrimination on cardiovascular health, breast cancer treatment, stress and depression, wage earnings and educational attainment. Gaps in the knowledge highlight the need to consider Latino-specific discrimination but commonly report a negative relationship between discrimination and health outcomes. The findings of this study highlight how discrimination should be considered as an additional stressor to acculturative stress that could be contributing to the squandering of the Latino paradox.

Discrimination and Health in Latinos: An analysis of studies on perceived racial/ethnic discrimination and health outcomes in Latino populations in the US.

Long standing lines of evidence have established the strong pressure that socioeconomic status (SES) exerts on the health of individuals. At every step of the SES hierarchy, disparities exist with lower SES status displaying a strong correlation to poor overall quality of health and shorter length of life. Researchers are beginning to recognize the substantial influence that race and ethnicity impart on SES revealing, in short, that the effects of the social determinants of health change along with ethnic variations (Zsembik and Fennell, 2004). As unfortunate as the reality may be, discriminatory experiences are inextricably linked to different racial and ethnic categories in the United States. An

abundance of studies have focused on African Americans examining how racial/ethnic (r/e) discriminatory experiences in US society can affect health (Williams et al., 2003); however, there is lack of focus on research underscoring the affects that r/e discrimination may be having on the health of Latino populations. To have a more complete understanding of the effects of discrimination among Latinos and Hispanic populations, we reviewed current scientific studies linking discrimination to health outcomes in the fields of physical health, mental health and the social determinants of health.

Relevant Background

The Latino paradox must be considered when studying Latino populations because of their unexpected health outcomes—usually in domains of resilience in overall mortality, infant birth weight, and mental health—relative to their generally lower SES status. The aspect of discrimination and its potential to strengthen or deteriorate the Latino paradox is not currently very well studied for Latinos. However, the topic is important because Latinos in the US may experience discrimination at rates which represent additional psychosocial stressors, in addition to low SES, immigration and acculturation-related stressors (Gallo et al, 2007). If discrimination is a pathway that could be affecting Latino health then it could potentially be squandering the protective benefits of Latino culture important in the Latino paradox. In addition, if we consider the most complete definition of health to be the overall soundness of physical, mental and social well-being then it is important to strive to completely elucidate the full effect that discrimination may be exerting on any of these aspects of health. This will help us to better understand perhaps any detrimental effects discrimination has on the Latino paradox.

Latinos may be the fastest growing ethnic population in the United States with 42 million Latinos and Hispanics in 2003, but they are still a marginalized community within a system determined by a dominant, majority racial group. Discrimination, therefore, embodies differential treatment based on group membership consisting of a denial of opportunities or negative behaviors resulting from prejudice

(Araújo and Borrell, 2006). It is within this context that we must conceptualize another process that is relevant to the Latino paradox: the process of acculturation. Acculturation is a dynamic process that is rarely specified but commonly associated with more time in the US (Zsembik and Fennell, 2005). It is currently thought that as acculturation increases the protective benefits of an individual's habits instilled by ideals of their respective Latin culture of origin are selectively coerced and replaced with more US based customs. This is potentially leading to the loss of resilience domains of the Latino epidemiological paradox. However, it is commonly misinterpreted that the acculturation process is a linear replacement of Latino habits with US habits. More importantly, it is commonly overlooked that aspects of every day life experiences relevant to the acculturation processes tend to be events that are completely out of the control of the individual. Discriminatory experiences are such type of events. Discriminatory experiences based solely on the experiences of Latinos and Hispanics are very unique and encompass not only acute events such as prejudice in employment or housing opportunities but also every day aggravations that are out of the control of individuals (Araújo and Borrell, 2006). These events include poor treatment at restaurants, getting hassled for poor English speaking abilities or the use of the Spanish language, or unwarranted questions about legal status. They also include poor treatment for having Latino phenotype, different skin color, or overall features of Latino appearance. Discrimination is a common experience that comes into the lives of people of minority groups in the US without warrant and is indefinitely intertwined in the acculturation process of Latinos to US culture. However, it is rarely acknowledged in current work.

Insufficient explanations have been given to account for the ethnic disparities to health in the United States when regarding discrimination. Genetic studies do not come close to explaining why with more time in US the same people, undoubtedly with the same genetic make-up, display changes in health outcomes. Genetic diversity is greatest within groups not between groups and race itself may perhaps just be a socially constructed term (Jackson, 1991). So we must find adequate explanations for

the disparities in health today that instead reflect differences in the established social systems that contribute to poor outcomes for Latino communities. Genetic difference is not a sufficient explanation.

The purpose of this study is to evaluate and interpret current evidence that links discrimination experiences based on Latino race and ethnicity and review the proposed relationships to health outcomes. The potential avenues through which discrimination may affect Latino health are very numerous and are worthy of elaboration (Araújo and Borrell, 2006). Still in its stages of infancy, studies are reporting supporting evidence between discrimination and health outcomes in the fields of physical health, mental health and social determinants that affect health among Latino populations. Evidence presented in this review will highlight ten community based to regional studies that, for the most part, support negative relationships between discrimination and health variables in Latinos. These studies will look at physical domains such as cardiovascular variables, breast cancer treatment and self-reported physical health differences in regards to discrimination. In addition, the studies reviewed examine the effects of discrimination on stress and depression pertaining to the topic of mental health. Finally, studies purport that discrimination affects the ability of individuals to maintain or advance SES (life chances), which in turn, affects health outcomes in established ways. Therefore, the effects of discrimination on education attainment and job wages for Latinos will be reviewed when considering discrimination and the social determinants of health. We maintain throughout this review that discrimination is an additional mechanism through which the protective aspects of the Latino culture are being eroded in the Latino paradox, in a way that is intertwined with the acculturation processes. Studies being viewed will report the widespread prevalence of perceived discrimination and the experience of discrimination will be linked to detrimental aspects of health.

Discrimination and Health Outcomes

The present review found four articles linking discrimination to several venues of physical health, four articles relating discrimination and increased stress or depression rates, and discrimination by skin color connected to difficulties in education attainment or lower wages.

Physical Health

All studies pertaining to physical health reported a unique damage to the physical health of the participants mediated by discriminatory experiences of an acute or chronic nature, with two of the four studies concluding significant results in models controlling for other factors. For example, Salomon and Jagusztyn (2008) found a surprising result. While measuring prior exposure to discriminatory experiences, Latinos that attribute past unfair treatment to race had a higher resting systolic blood pressure (significant difference within ethnic group, $p < 0.05$) than those who did not attribute past unfair treatment to race. The finding was surprising in that the study aimed simply to measure two main cardiovascular variables, resting blood pressure (BP) and heart rate (HR), in an experimental set-up to examine cardiovascular response to a rude, ill-mannered research assistant. The study consisted of college students from a southern university and contained 72 undergraduates, 18 of which were Latino/a participants, without prior high BP or cardiovascular disease (CVD) diagnosis. Perceived ethnic discrimination was measured with two established scales to capture the attribution of unfair treatment in everyday life to race, ethnic, religion or physical individual characteristics. The study used a blood pressure monitor to measure systolic blood pressure (SBP) during an interaction with a trained assistant who induced an interpersonal stressor (i.e. acted rudely by tearing up a form the students completed and ignored the students during the experiment). The scientists used ANCOVAs and chi-square test to find significant differences between the resting SBP of Latino/a subjects that attributed ethnicity to past unfair treatment and those that did not. The scientist concluded, by showing that Latinos who attribute

race to past unfair treatment have higher resting SBP, that discrimination may be a factor that contributes to CVD risk.

A study by Finch et al. (2009), using a sample of 3,012 foreign and U.S.-born Mexican-origin adults from Fresno, CA, found by measuring self-rating of overall physical health and self-reported chronic conditions that discrimination had significant links to poorer reported health. Self-reported health has been shown to be one of the most accurate predictors of morbidity and mortality, as accurate as physician-rated measures and this study linked poor self-reported health to observed discrimination against the individual or an individual's friend in the community. This was one of the most complete studies measuring many other aspects contributing to global health including SES, national heritage, acculturation stress, and social support. Even when controlling for acculturative stress, the study concludes that poorer self-reported physical health is linked to discrimination and perhaps through a mental health aspect such as depression, this finding can be attributed to the detrimental effects that discrimination plays on physical health.

Using data from the SEER-Medicare file coupled to 1990 US census tract information, Hass et al. (2008) examined 47,866 women age 66-85 (with 1,704 Hispanics) to examine the effect that race/ethnicity and segregation have on the ability to attain adequate care for breast cancer. Using chi-square tests, the scientist compared characteristics of breast cancer of black and Hispanic women to characteristics of breast cancer in white women. The study reveals racial segregation is linked to disparities in breast cancer treatment including later diagnosis for breast cancer tumor and less likeliness to receive mastectomy or radiation treatment than Whites for Hispanics coming from census tracts with higher populations of Hispanics (OR,0.74; 95% CI, 0.61-0.89). The study found White-Hispanic disparities in models that controlled for only individual-level characteristics and were not significant in

models controlling for all variables, but still maintains that women overall living in segregated areas receive less adequate breast cancer care.

Moreover, in the Albert et al. (2008) study using data from the Dallas Heart Study consisting of a multi-ethnic based probability sample of Dallas residents 30 to 65 years old, of which 191 were Hispanic with a mean age of 51.1 years, the scientist measured several risk factors associated with CVD. This study was performed in an effort to examine the relationship between discrimination and the variables such as C-reactive protein concentration, pro-inflammatory cytokines, Ca²⁺ build-up for subclinical atherosclerosis, aortic plaque and aortic wall thickness. Participants were asked if they had ever been discriminated against because of their race. This study did not find a significant correlation between discrimination and the CVD-related risk variables that were measured. But the study did find that 22% of Hispanics reported r/e discrimination, and of those Hispanics that reported r/e discrimination, participants were more likely to be U.S.-born men, habitually smoke, and also have a higher propensity for hypertension (OR = 2.4, 95% CI 1.1-5.3) in unadjusted models.

Mental Health

Our research resulted in four articles that aimed to elucidate findings between discrimination and mental health aspects of Latino populations. In one study by Codina and Montalvo (1994) spanning the Southwestern region of the US, a probability sample of 991 Mexicans (376 males, 559 females) found by face-to-face interviews that U.S.-born Mexican men with darker skin had the highest levels of depression compared to those with light skin using regression analysis. This study found that results were maintained regardless of educational attainment, income or language proficiency and found no association between phenotype and depression for women. The authors concluded that more European-looking Chicanos fared better because perhaps they were able to go through life under the radar of discrimination.

Another study by Stuber et al. (2003) found that those who reported higher levels of racial discrimination likely reported poorer overall mental health via telephone interview for 382 Latinos in New York City. This study was one of few that distinguished between Puerto Ricans, Dominicans, and Mexicans. Scientist found a mean difference between rates of interpersonal discrimination and linked those reports to likeliness of also reporting poor overall mental health (mean difference 0.59 using N. Krieger scale); however, the result was not significant at a more stringent level.

A study of a veteran military population including 1,736 Asian, Black and Hispanic males (of which 756 were Hispanic) by Sohn and Harada (2008) focused on studying how mental health was linked to discriminatory experiences during military service and training for the Vietnam War in veterans now living in the Greater Los Angeles area. Discrimination was measured by two variables including r/e discrimination during past military service (agree/disagree) or satisfaction toward health care provider's cultural sensitivity in Veteran Hospital in the past year. Bivariate analysis, chi-square test and t test were used to make associations between race/ethnicity and the dependent variables. Hispanic veterans (mean age 56.53 +/- 13.2 SD) were least satisfied with the cultural sensitivity of their provider in the past 12 months at the Veterans hospital. Although in adjusted models discrimination during past military experience was not linked to current mental health, the author did discover that current satisfaction to health provider's cultural sensitivity was linked to better mental health in all groups. The authors conclude that past discrimination occurred so long ago in the past that veterans may have coped already with past mental health issues and, therefore, no link between current mental health and past discrimination was seen in these veterans.

Flores et al., (2008) found that perceived discrimination was a predictor of depression and poor general health even when accounting for perceived stress. This study focused on 215 Mexican-origin adults recruited because of membership to an HMO provider in northern California and previous participation in another study. The study included 96 fathers and 119 mothers and through 1 hour

phone interviews measured perceived discrimination through a self created 14-point scale capturing everyday discriminatory stress due to minority status made specifically for Mexican or Latino origin. Perceived stress was measured through an established scale and depression through the Center for Epidemiological Studies Depression Scale. Men reported greater discrimination, and women reported greater stress, and depression, and when perceived stress was included in their models, discrimination remained a significant predictor of heightened depression ($b = 2.97, p < .002$). Even when accounting for general stressors, the authors conclude that chronic, daily discriminatory experiences pose a significant effect on depression and are harmful to the physical and mental well-being of Mexican origin adults.

Social Determinants

This study provides two articles that focus on the role that discrimination plays in influencing the social determinants that undoubtedly affect health. In a study conducted in Boston, Massachusetts, Gomez (2000) found that among men, those with darker skin of self-identified Puerto Rican and Dominican origin earned lower wages than men with lighter skin. Wage differences were not found to correlate to skin color in women. Using face-to-face interviews averaging 1 hour and 48 minutes, scientist judged skin color based on observation without any previous training and probed for racial inequality. Demographics on the individuals were already collected as part of the Boston Social Survey Data of Urban inequality. Hourly wage differences were significant at the $p=0.10$ level. The scientist concluded that skin color does matter for economic attainment in the sample of Latinos attributing the finding to labor market discrimination received by dark-skinned Latino men.

Finally, Telles & Murguia (1996) found by examining in 991 participants from southwestern US in a national probability sample, light skin color in Mexicans was linked to 1.5 more years of education. The study was performed through face-to-face interview and phenotype (skin color) and education were measured. The scientist concludes that phenotype plays a significant role in predicting one's life chances (marked by educational attainment).

Limitations

The present review examined empirical articles providing basic evidence on the topic of discrimination in relation to physical health variables, poor mental health prevalence and the effects of discrimination on social determinants of health. However, the findings were plagued with errors that are very common in studies that focus on Latinos. The limitations of the research presented will be identified here.

The most apparent limitations in the physical health studies were the differences in the scales used to measure discrimination among all studies. Studies asked self-reported measurements of perceived discrimination while yet others used neighborhood demographics as a proxy for segregation and, therefore, *r/e* discrimination. Some of the scales were previously used to measure discrimination for Black participants, yet they were used on Latinos without prior testing. The focus on African Americans in physical health outcomes and discrimination is also very abundant and Latinos tend to be used as side-groups with very small (comparably) sample sizes to Blacks (example in one study only 18 Latino/a college students). Most importantly, these studies lacked the physiological mechanisms through which discrimination is detrimental to physical health and relied on mental health explanations for the manifestations of discrimination on health.

Mental health studies were also limited in their measurement of discriminatory experiences, with marked variation between studies again. The military populations study, for example, simply asked about the occurrence of a discriminatory event while Flores (2008) study had constructed its own 14-scale of discrimination to measure everyday discrimination. These studies, however, were successful in highlighting gender differences on the effects of discrimination which, in turn, pointed out shortcomings in studies of physical health that did not focus on gender differences. The two studies that relied on face-to-face interviews while probing for past discriminatory experiences could result in underreporting because of unwillingness to divulge such potentially emotional events.

Conclusion and Discussion

The current review evaluated ten studies ranging from physical health, mental health to the social determinant of health to report current empirical evidence for the effects on health due to discrimination in Latino populations. Each field had evidence to support an overall pattern of the negative relationship between discrimination and health, however only few results were significant in their respective studies after correcting for pertinent variables. For physical health, past discrimination experiences were linked with higher resting SBP (Salomon and Jagustyn, 2008). While this study showed direct empirical evidence other studies failed to report significant findings in models correcting for other physical variables. Discrimination was also linked to higher rates of depression when accounting for education, income and language proficiency (Codina and Montalvo, 1994). Depression was the mostly likely outcome of discrimination for Latinos as another study found discrimination significantly affected depression rates after controlling for general stressors (Flores et al. 2008). Conversely, the influence of skin color on wage attainment was significant at a p level not acceptable for most studies.

These findings highlight the important role that discrimination can take in well-constructed studies with appropriate measures in place. Future research should strive to obtain an industry standard of sorts that captures discrimination with a particular emphasis on the way Latinos are discriminated against today. These studies also failed, with few exceptions to highlight the importance of the heterogeneity of the Latino culture and phenotypes associated with Latin people. In the broader context of the Latino paradox, the conclusions drawn from the reviewed studies highlight the potential role that discrimination could be playing along with acculturation processes that are to the detriment of the protective benefits of the paradox. The studies on discrimination in the future should adhere also to the guidelines provided for all studies on Latino populations. The studies should embrace the multi-

faceted diversity of Latino populations, and measure acculturation in dynamic ways. With these provisions, scientist will soon realize the true power discrimination exerts on Latino health outcomes and soon policy makers and government programs can strive to accommodate for the adverse affects of discrimination to Latino health.

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The Impact of Health Insurance on Latinos' Health Care Satisfaction

Esther Rodriguez

Professor Feliciano

Introduction

Hispanics have the highest uninsured rates of any racial/ethnic group within the United States and are the largest minority. According to the United States census data, as of

July 2006, there is an estimated 44.3 million Hispanics or 14.8% of the total population (U.S. Census Bureau, 2006). In 2004, the gap between Hispanics and non-Hispanic whites with a usual source of health care was significantly large: 45.3% with 80.7% respectively (U.S. Department of Health and Human Services, 2008). According to the report by the U.S. Department of Health and Human Services; Healthy People 2010, only 65% of Hispanics have some kind of health insurance coverage. In addition, the PEW Hispanic Center reported an alarming number--83%-- of Latinos report they obtained health information from some branch of the media, with television the dominant source (Livingston, Minushkin, & Cohn, 2008). Not only are most Latinos obtaining information from media sources, but a sizeable proportion--79%, say they are acting on this information (Livingston, Minushkin, & Cohn, 2008). Because Latinos are the fastest growing minority and the largest group without a usual source of health care, it is of importance to investigate what quality of health care Latinos are receiving. Also, does having a source of health insurance affect the quality of health care Latinos receive?

This paper examines the question of whether Latinos are satisfied with their health care and whether having a source of health insurance plays a role in the quality of health care Latinos receive. This study analyzes how the many different barriers and factors Latinos face in obtaining health care affect their perceived quality of health care. By barriers and factors I mean unstable jobs, low income, low education, and low or no English-language proficiency which are all prevalent in the Latino community. Using information I gathered through a survey and in-depth interviews, I was able to answer the following questions: (1) What quality of health care are Latinos reporting they receive? (2) Does having health insurance affect satisfaction with the quality of health care obtained?

(3) Do Latinos report less satisfaction with health care compared to non-Latinos? I find that while fewer Latinos than non-Latinos report having health insurance, those who have access to a health care provider tend to be satisfied with the quality of health care received.

Literature Review

Hispanics have the highest uninsured rates of any racial/ethnic group within the United States. According to the United States census data as of July 2006, there are an estimated 44.3 million Hispanics or 14.8% of the total population (U.S. Census Bureau, 2006). In 2004, the gap between Hispanics and non-Hispanic whites with a usual source of health care was significantly large 45.3% with 80.7% respectively (U.S. Department of Health and Human Services, 2008). What accounts for this phenomenon?

Research shows that language and cultural difference barriers may largely influence the quality of health care Hispanics receive, due to the lack of proper patient-physician communication (Weech-Maldonado, Fongwa, Gutierrez, & Hayes, 2007; Timmins, 2002; Morales, Cunningham, Brown, Liu, & Hays, 2001). These studies also indicate the lack of proper patient-physician communication results in Hispanic patients feeling less satisfied with the care they receive. The studies also indicate there is a strong association between English proficiency and the quality of primary care among insured Hispanics. The less English proficiency the lower quality of care perceived by the patient compared to those who are English proficient. This problem has been addressed by professional interpreter services and more Latino providers.

Research in the effectiveness of professional interpreting services in improving the quality of health care for Latinos indicates the service positively affects patient satisfaction,

quality of care, and outcomes (Flores, 2005; Karliner, J, Jacobs, Hm Chen, & Mutha, 2006). Research on the utilization of interpreter services suggests patient satisfaction with care and outcomes are best when there is good patient-physician communication. There is a rise in the number of Hispanic physicians that also helps to alleviate the language problem, but is the supply enough for the demand for culturally sensitive doctors for the Hispanic population?

According to the Minority Affairs Consortium (2008) there are 46,214 Hispanic physicians or 5%, which is a growing number, but when compared with 55.8% of white physicians, the disparities are evident. Furthermore, there is a lot of research that indicates patient-physician racial concordance and culturally sensitive health care greatly affects perceived quality of health care (Saha, Komaromy, Koepsell, & Bindman, 1999; Warda, 2000; Blanton, Brodie, Rowland, Altman, & McIntosh, 2000; Valdez, Giachello, Rodriguez-Trias, Gomez, & De la Rocha, 1993; Johnson, Saha, Arbelaez, Beach, & Cooper, 2004). These studies found that patient-physician relationships and perceived quality of care for Hispanics are less satisfactory compared to blacks and whites with non-Hispanic physicians. In addition, based on a survey, Mexican American nurses believe respect, caring, understanding, and patience in health care is critical for perceived good quality health care for Latinos (Warda, 2000). Moreover, Latinos may perceive they receive lower or poor quality health care compared to whites or other races/ethnic groups, but they are more concerned with the economic burden of health care than racial barriers (Blanton, Brodie, Rowland, Altman, & McIntosh, 2000). Therefore, the problem with health care needs to be addressed.

Affordable and equal access to health care has been a popular debate since it is getting increasingly expensive to have health insurance, but for Hispanics, this is not new news. Research suggests that Hispanics are less likely to have health care coverage and even less likely to have a regular source of preventative care (Prevention, 2004; U.S. Department of Health and Human Services, 2008; Haas, 2004; U.S. Department of Health and Human Services, 2008; Valdez, Giachello, Rodriguez-Trias, Gomez, & De la Rocha, 1993). Even though educational attainment, immigrant status, and income level are all factors that influence health care coverage, research suggests that Hispanics of every income and educational level are significantly less likely than their non-Hispanic peers to have health insurance. Hence, new reports find that foreign-born and Latinos who mainly speak Spanish and lack U.S. citizenship, or who have only short tenures in the United States are less likely than other Latinos to report that they have a usual place to go for medical treatment or advice (Livingston, Minushkin, & Cohn, 2008). In addition, institutional barriers, problems with the health care system and cost of health insurance also contribute to the failure of providing adequate health care services to Latinos.

Hypothesis

Existing literature continues to point out that language and cultural barriers affect the quality of health care Latinos/Hispanics receive. I hypothesize that Latinos who have access to health care are satisfied with the quality of health care they receive regardless of cultural and language barriers. I believe that language and cultural barriers play a role, but the main problem with satisfaction of health care is the lack of access to health care.

Methods

I collected quantitative information by conducting a 24 question survey. I received 51 completed surveys. I conducted the surveys between December 15th 2008 and January 3rd 2009. I administered the surveys in L.A. county in different locations such as Starbucks, Lakewood mall, Walmart, and randomly getting people to participate who were just walking down the street in the city of Paramount. I conducted the survey in English and Spanish for those who did not speak or read English. For the most part I handed individuals a survey and they checked off their answers. For those participants that did not read English, or who were not proficient in English, I read the questions and answers to the participant and they would tell me what answers to check off. The sampling was designed to target individuals of Hispanic origin, but the sample consisted of other races/ethnic groups. The other races/ethnic groups that participated were African American, White/Caucasian, Asian/Pacific Islander, Bi-racial/Multiracial, and other. I collected the data very quickly and my main focus was to get a sizeable sample. Therefore, the sample for the survey consisted mainly of individuals under the age of 65. The survey included questions dealing with demographics such as sex, race/ethnicity, age, education level, and yearly household income to find out percentages of those with health insurance. The remaining questions were targeted to gather information regarding insurance coverage if they had any, and their experience with doctors, offices, and their care in general in a multiple choice format. In addition, there were questions addressing satisfaction with physicians, communication and if translation resources are available for those who are not fluent in English. I used descriptive statistics to identify comparison points between Latinos and non-Latinos. Most importantly to compare variables between Latinos and non-

Latinos related to health care satisfaction such as; percentage of Latinos versus non-Latinos with/without insurance, and reported satisfaction.

Furthermore, I collected qualitative data by conducting in-depth non-formal interviews. I conducted the Interviews between December 18th 2008 to present. The sample is a snowball sample that began with friends and relatives. The purpose of the snowball sample is to enable me to select Latino/Hispanic individuals who can trust me and give me details regarding sensitive information like their medical care arrangements/history, income, immigration status, etcetera. Therefore, the best way to accomplish this is through a snowball sample. Latino/Hispanic participants were selected of different incomes, ages, and locations, in order to get the information that I want. In the sample, I also tried to get as much variety as I could regarding individuals with and without insurance in order to find out if insurance coverage can possibly affect outcomes and satisfaction with quality of care. Individuals interviewed are from L.A. county, Orange county and San Bernardino county which have areas with large hispanic populations.

I conducted ten informal in-depth interviews with people who identify as Latino/Hispanic¹. I interviewed five females and five males. Of the ten people, four were Mexican immigrants. The remaining six people were either first or second generation Mexican-Americans. Of the four Mexican immigrants, one did not have legal status in the United States. Of the ten, three did not have any source of health insurance. I interviewed individuals with and without insurance to better represent the Latino general population. I did not interview many individuals without insurance since I was primarily interested in

¹ Appendix 2 contains a brief summary from each individual I interviewed.

the quality of health care Latinos receive, which would be more relevant and accessible to those who have a source of health care insurance. The interviews took anywhere between forty-five minutes to an hour and a half depending on how much the individual had to say.

The respondent was given details about the project and the confidentiality of their information. Once they agreed to participate they were told they may refuse to answer a question if they choose to or to terminate the interview at any time. The interview was in person or over the phone, in English or in Spanish. The interview was guided by a few questions I created to ensure a continuous conversation². The in-person interviews were recorded then I wrote notes. As for the over-the-phone interviews, I was taking notes as the respondents were talking. Three of the respondents did not speak English and their interviews were conducted in Spanish. As I was taking notes during the interview I translated their responses into English.

During the interview, I wanted to find out what Hispanics perceive good quality health care is, and what kind of care do they believe they are receiving. Depending on the respondents' answers, I wanted to find out why they think they are getting poor quality health care, or good quality health care. In other words, what components or factors make the respondent decide the quality of their health care. I also looked for information regarding problems respondents saw with physicians, offices, and the health care system. In contrast, I looked for information regarding benefits and things respondents liked about their health care providers, offices, and about the health care system. As a general rule, I wanted to try to get information about all the possible factors that might influence quality

² Appendix 3 has the guideline questions I used during the in-depth interviews.

of health care for the respondent, such their access to health care, immigration status, income, education levels, and if they had a language barrier.

Statistical Findings

Characteristics of Respondents

A total of 51 individuals completed the survey³. As table one below shows twenty respondents (40%) identified as Hispanic. Thirty-one respondents (60%) identified as African American, White/Caucasian, Asian/Pacific Islander, Bi-racial/Multiracial, or Other. For the purpose of comparison, table one below shows I grouped together all non-Latino groups into one category. As table one also shows 29 respondents (57%) were male and 22 respondents (43%) were female. Twenty-eight respondents (55%) were between the ages of 18-35, twenty-one respondents (41%) were between 36-64, and two (4%) were over the age of 65. Forty-five respondents (88%) completed at least high school.

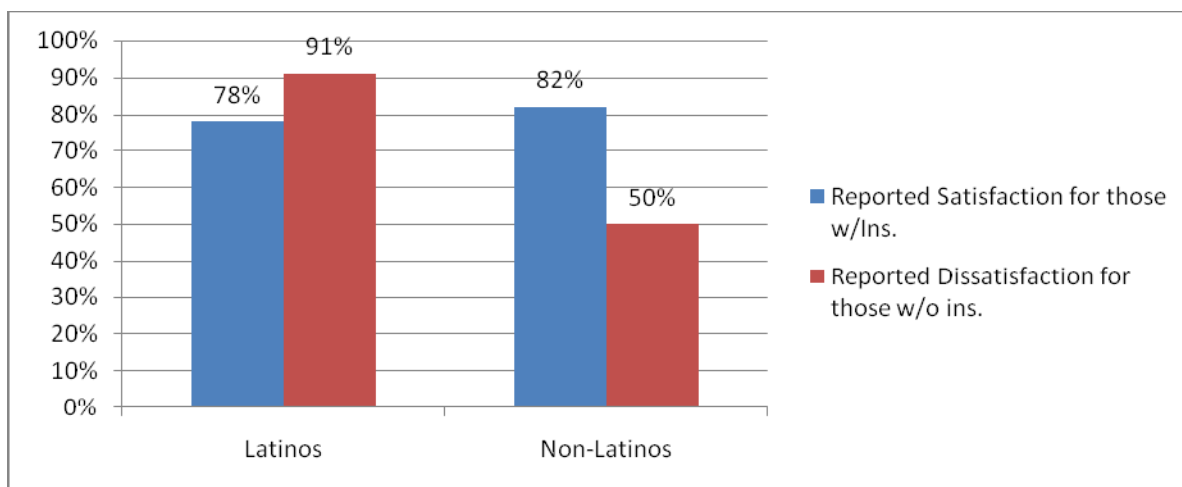
Table 1: Main Characteristics of Respondents	
	Percentage of Participants
Hispanics	40%
Non-Hispanics	60%
Females	57%
Males	43%
Between the ages of 18-35	55%
Between the ages of 36-64	41%
65 and over	4%

³ Appendix 1 contains the survey that I administered.

Health Insurance and satisfaction with care/Doctor

Latinos were less likely than the overall sample of participants to have some type insurance. Forty-five percent of Latinos have insurance compared to sixty-three percent of non-Latinos. As seen on figure one below seventy-eight percent of Latinos with some form of insurance coverage reported being very satisfied or satisfied with their care and doctor compared to eighty-two percent of non-Latinos which is not significantly different. On the other hand, figure one shows ninety-one percent of Latinos without insurance are unsatisfied with their care and doctors compared to fifty percent of non-Latinos.

Figure 1: Reported Satisfaction



Seventy-eight percent of individuals responded their doctors answered their questions and concerns in terms they could understand. Racial differences in use of health care services were evident. A total of 45 respondents (88%) agreed that the quality of health care they receive is largely affected by their relationship and experiences with their

doctor. A total of eighty-one percent of respondents with insurance responded they were satisfied with the care they receive and with their doctor.

Qualitative/Interview Findings

What is good quality Health Care?

When I asked participants what good quality health care is, respondents commonly replied: good caring doctors. All ten individuals said good health care was influenced by the care and treatment they receive by their doctor(s). In one case, a 55 year old Mexican immigrant female who I will call Margarita said,

“I think good quality health care is caring doctors that care about their patients who clearly explain to their patients what they need to do to get better. With my type 2 diabetes I like a doctor who is going to be straight forward with me and tell me exactly what I can and can’t eat instead of them assuming that I know what they mean if they say to eat healthy. That’s supposed to be the purpose of a doctor to help his patients get better” (translated from Spanish).

As a type 2 diabetic, she finds it very important for her doctor to explain in terms she understands what each of her medications is for. She also finds it very important for her doctor to explain the adverse and long term effects of the medication since she takes five different medications. Another explanation of what good health care is comes from a 34 year old first generation Mexican-American female who I will call Maria,

“I believe caring physicians, proper medical management and treatment that is not based on insurance reimbursements to the doctors from the insurance companies is

good quality health care. In other words, doctors and offices that give proper care regardless on the insurance one has, and how much the doctor receives each month for having that patient belong to his network.”

Maria works in the medical field and believes some doctors may not treat all patients equally. She had experiences with her last employer in which the doctor would sometimes not even see the patient. Instead the doctor would look at the patients’ complaints, make a diagnosis and write a prescription of medication for that patient without seeing them. She believes this occurs because doctors get a “capitated” payment or a fixed amount every month for each patient with insurance and the amount varies based on the type of insurance.

The perspective of older Mexican immigrants adds a component of respect along with caring doctors. Among the three Mexican immigrants I interviewed over the age of 55, all said that part of good quality health care is to be treated with respect. A 66 year old Mexican immigrant male who I will call Honorato who has permanent residency stated,

“Getting good quality health care means having a doctor that cares about his patients and respects them as human beings. They have to understand that we are all human and treat us with respect. They shouldn’t treat us indifferent or inferior to others just because we might not speak English or dress or act a certain way. They should give you the best care possible and not discriminate and think one doesn’t have the money to pay for their services. We are paying them for their work. They’re not doing it for free. So, patients should be treated with respect as paying customers” (translated from Spanish).

Honorato feels that all people should be treated with respect by doctors regardless if they have insurance or not. He believes that even people who have government health coverage such as medical and Medicare should be treated as paying customers and given good care because the doctor is still getting paid for his services. In Margarita's interview she said,

“Doctors also need to be aware and respectful of our customs. As an older female I'm very reserved and sometimes feel uncomfortable with male doctors. So, doctors should be sensitive to other traditions and cultures. My doctors are really good about my reservations and usually reaffirm me by letting me know exactly what they have to do especially when it comes to female exams and that makes me feel respected and much more comfortable putting my health in their hands. And my private parts (laughing)” (translated from Spanish).

Type of Health Insurance and Satisfaction with care and doctor(s)

From my interviews, I found that regardless of type of insurance, individuals with some source of health coverage all seemed to be satisfied with their care and doctor(s). I found that respondents made a connection between having access to health care and a good doctor to good quality health care. For example, the 25 year old first generation Mexican-American female who I will call Claribel has an HMO through her employer and is currently pregnant. She is getting constant routine prenatal care and said,

“Many people criticize HMO's and their coverage, but my doctors are great. I haven't had any problems getting any of my tests done for my pregnancy. I do pay a lot of money to my employer every month for my insurance, but I get everything I need. Overall, I am very satisfied with my care and doctor. I'm treated well; he listens to

my questions and always answers them completely in terms I understand, without being hurried about the time.”

Maria also reported being satisfied with the care she receives by her doctors with her HMO insurance. In her interview she said,

“I haven’t had any problems with my HMO. Three months ago I broke my ankle and everything that had to be done was handled promptly and without any problems. Sometimes people complain they have problems with their HMO’s covering their services and paying for them. I was picked up by the ambulance, had surgery, underwent physical therapy and everything went smoothly, without any problems or complains. And my doctors did a great job with my ankle surgery and my rehabilitation. My ankle hardly swells up anymore.”

The 27 year old first generation Mexican-American female who I will call Teresa also reported being satisfied with the health care she receives through medical and with her doctor. Teresa said,

“I love medical. I qualify so I don’t have to pay anything and all my medical needs are met. All my exams are covered, I even have dental coverage. I like my doctor because even though she is always busy she takes her time to make sure I understood everything she tells me and always asks if I have any questions. She cares.”

Likewise, even those who do not have health insurance tend to be satisfied with their care and doctor. In Honoratos’ case he said,

“I am very satisfied with the care I receive and the doctor I go to. Being a cash patient, I have the option of going with whoever I want and I stay with the same doctor because I think he gives me good and complete care. He is also very down to earth and doesn’t undermine his patients.”

In the case of another cash patient, the 58 year old Mexican immigrant male who I will call Serafin is low income and does not have a stable job. Serafin only goes to the doctor when he is ill or for emergencies. He said,

“I am satisfied with the care I get because I usually only go to see the doctor when I’m sick and he does a good job. If I’m sick they give me the medication I need. If it’s an emergency like when I split open my eyebrow they stitch me up and give me what I need and I’m good. “

Serafin does not suffer from any chronic conditions and therefore on the rare occasion that he sees the doctor, he is always satisfied with the health care he receives since they take care of his condition.

A difference I observed with the type of insurance is that the participants with private insurance or a PPO have the freedom of getting whatever care they want to receive and do not need approvals or referrals for services they want or need. On the other hand, individuals with an HMO or medical/Medicare have their medical care organized by their primary care physician and usually need approvals and referrals for services they need. For example, the 38 year old 2nd generation Mexican-American male who I will call Henry said,

“I have a PPO and pay a lot of money to my employer to have it. So, when I need to go to the doctors or feel I want to get something checked out like a mole, or even my complexion I go without hesitation. That’s what I pay all that money for.”

On the other hand, HMO’s and government funded insurances like medical/Medicare usually only cover necessary procedures and check-ups. Nonetheless, respondents with medial/Medicare insurances are satisfied with the quality of care they receive as stated earlier.

Discussion

Is Language Really a Barrier?

I found among the sample I interviewed that not being proficient in English was not necessarily a barrier in receiving high quality health care. The 3 individuals I interviewed that did not speak English said their doctors offices have staff that are fluent in English and Spanish and usually translate when needed. In addition, two of the 3 respondents go to Latino/Hispanic doctors who are fluent in Spanish and do not need to utilize translation services.

As literature indicates, proper patient-physician communication is needed for Latinos to feel satisfied with the health care they receive. Moreover, as literature shows there is an increase in professional translation services and a growth of Hispanic physicians are helping to alleviate the language barrier in quality health care for Latinos (Weech-Maldonado, Fongwa, Gutierrez, & Hayes, 2007). In addition, Flores proves that patient satisfaction with care and and outcomes are best when there is good patient-

physician communication (2005). This supports my findings that Latinos do not necessarily feel that language is a barrier in receiving good quality health care since there seems to be more resources to improve this problem.

Access to Health Care

Contrary to the literature, I found that individuals who have some source of health insurance reported they were satisfied with the care they receive and with their doctors. Based on the interviews the participants reported being “extremely satisfied” to “satisfied”⁴ with their care regardless of insurance type. Literature indicates, institutional barriers, problems with the health care system and cost of health insurance contribute to the failure of providing adequate health care services to Latinos (Livingston, Minushkin, & Cohn, 2008). In addition, literature indicates Hispanics are less likely to have health care coverage and even less likely to have a regular source of preventative care when compared to other ethnic groups (U.S. Department of Health and Human Services, 2008). I found this is the case among Latinos. Latinos are less likely to have a usual source of health insurance due to the financial burden of health insurance costs.

Are Latinos Receiving Good Quality Health Care?

I found peoples’ perception of good quality health care is heavily influenced by the experiences they have with their doctor, and not necessarily on the type of health insurance they have. Based on the in-depth interviews and the survey I conducted, I observed that when a patient is satisfied with his/her doctor they tend to be satisfied with

⁴ Quotes are based on the in-depth interviews general responses.

the care they receive as well. Latinos tended to be grateful for having access to health care.

Literature indicates that outcomes are best when there is good patient-physician communication resulting in patient satisfaction with care. My findings are based on individual perception of good quality health care and may reflect individual ideology or even their current situation. In other words, my findings on health care satisfaction may reflect individuals' comparisons among other circumstances in their lives. As literature suggests, Latinos are more concerned with the economic burden of health care than ethnic or language barriers (Blanton, Brodie, Rowland, Altman, & McIntosh, 2000). Hence, it could be that Latinos simply report satisfaction with health care as long as they have medical access because it is one less thing to worry about. I did find that Latinos were grateful for having access to health care compared to non-Latinos who viewed it as a right.

Conclusion

I have argued that Latinos who have some type of health insurance tend to be satisfied with the health care they obtain. While language and cultural barriers play a role in getting good quality health care, Latinos believe that having access to a health care provider is what is important in receiving appropriate health care. I find the main problem for Latinos is the lack of access to health care, and not that they do not speak the language or are low income for example. Contrary to existing literature which suggests that language and cultural difference barriers may largely influence the quality of health care Hispanics receive, due to the lack of proper patient-physician communication (Weech-Maldonado, Fongwa, Gutierrez, & Hayes, 2007; Timmins, 2002; Morales, Cunningham, Brown, Liu, & Hays, 2001). However, I want to indicate my in-depth interviews came from

a snow ball sample that might not be representative of the general population. Therefore, future research should focus on interviewing a random sample in order to have a diverse population that is more likely to be representative.

My findings imply that the United States government should focus on a plan or policy to improve equal access to health care that includes the large Latino population. Perhaps the U.S. needs to implement a Universal health care system like other developed and industrialized countries that extends medical, dental, and mental health care to all eligible residents. A PEW Hispanic Center report indicates that unauthorized immigrants make up about 4% of the U.S. population which includes all undocumented immigrants (Passel, 2008). This shows the number of undocumented immigrants in the U.S. at one time is not a huge problem as the media portrays it to be. Hence, with the implementation of a Universal health care system many of the Latino population who are legally in the U.S. should be able to qualify which would alleviate the problem of so many Latinos lacking adequate health care.

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Appendix. 1

Survey I administered.

This survey is being conducted to fulfill a requirement for a college course. Participation is completely voluntary. **Please do not write your name the survey responses will be kept confidential.** Thank you for your participation.

Please choose **only one** answer to the following questions by checking the appropriate box.

1. Sex:

Male Female

2. Race:

African American Asian/Pacific Islander Hispanic/Latino
 White/Caucasian Bi-racial / Multiracial Other

3. Age Group:

18-35 36-64 65 +

4. Highest Level of education obtained:

- Did not graduate high school High school graduate or equivalent
 Some college College Degree
 Post college/graduate school

5. Yearly household income:

- Less than \$20,000 \$20,000 - \$34,999
 \$35,000 - \$49,999 \$50,000 +

6. Do you have health insurance coverage?

- Yes No

7. What type of insurance coverage do you have?

- Medicaid/ Medi-cal Employer paid insurance
 Medicare Employee paid insurance
 Don't have health insurance Outside purchased private insurance

8. If you don't have health insurance is it because... (If you do have insurance please mark not applicable)

- Can't afford it Don't like or believe in doctors
 Don't feel you need it Other reason Not applicable

9. Does the cost of co-payments prevent you from seeing the doctor?

- Yes No Sometimes Not applicable

10. Do you suffer from a chronic health condition? For example, asthma, diabetes, heart disease, etc.

- Yes No

11. How often do you see a doctor/health provider per year?

- 0 times per year 1 – 3 times per year 4 or more times per year

12. Please respond to the following statement. I can obtain an appointment with my doctor:

- Same day Within 1 – 2 days Within 3 – 4 days
 Within 5 working days Longer than 5 days Not applicable

13. Are doctor appointments available at convenient times (such as after work/school, weekends and so forth)?

- Yes No Not applicable

14. What is the waiting time in clinic/office to see the doctor?

- Usually less than 15 minutes 30 minutes +
 1 hour + Not applicable

15. Does your health plan require you to obtain a referral before you can see a specialist?

- Yes No Not applicable

16. Does your doctor's office process referrals to specialists or other doctors promptly?

- Always Most of the time Sometimes
 Never Not applicable

17. Does your doctor address all your questions and concerns effectively in terms you understand?

- Always Most of the time Sometimes
 Never Not applicable

18. Do you feel comfortable asking your doctor questions?

- Always Most of the time Sometimes
 Never Not applicable

19. Please respond to the following statement. I am satisfied with the amount of time my doctor spends with me during an office visit.

- Strongly Agree Moderately Agree Agree
 Somewhat Agree Somewhat Disagree Disagree
 Moderately Disagree Strongly Disagree Not applicable

20. Does your doctor's office offer translation services for those who don't speak English?

- Always Most of the time Sometimes
 Never Not applicable

21. What is your overall satisfaction level with your doctor?

- Very Satisfied Satisfied Unsatisfied
 Very unsatisfied Not applicable

22. How do you rate your health overall?

- Excellent Good Fair Poor

23. Do you think the quality of health care received is largely affected by your experience with your doctor?

- Strongly Agree Moderately Agree Agree
 Somewhat Agree Somewhat Disagree Disagree
 Moderately Disagree Strongly Disagree

Appendix. 2

Description of participants I interviewed.

Open ended informal in-depth interviews began December 2008 and ended January 2009.

1. 56 year old Mexican immigrant female. She has permanent residency. She lives with one of her daughters for free, but she baby sits her daughters' son while she works. She struggled to get medical since she does not have any more minor children, but she qualified since she has custody of one of her grandsons. She is diabetic and sees her doctors frequently. She does not speak English, but she does not think it's a barrier for good health care. Even though her doctors do not speak Spanish most of the office staff is fluent in Spanish and translate if she needs it. Overall she feels very satisfied with her doctors and the care she gets. She would like for it to be easier for people to qualify for free medical care.
2. 34 year old 1st generation Mexican-American female. She makes about \$50,000 per year. She received some college training and works in the medical field. She has insurance provided by and paid for completely by her employer. She states her insurance is an HMO, but is very content with the coverage and the services. She is fluent in English and Spanish. She recently broke her leg and had to undergo surgery and other procedure. She had a very good experience with the insurance and her

doctor through her surgery and recovery from her leg injury. Overall she is very satisfied with her care and her doctor. She would like for insurance to be more affordable and accessible for people who are self employed like her husband or under different special circumstances.

3. 27 year old 1st generation Mexican-American female. She graduated from high school. She is a stay at home mom. She has medical insurance. She has been going with her same doctor since her first daughter was born. She has two daughters ages 8 and 4. She is extremely satisfied with the care she and her daughters receive through medical. She believes her doctor is very good and knows what he is doing. Overall she is very satisfied with her doctor and the care she receives. She would like for insurance to be available for everyone to have because it's such a necessity to be in good health and get regular check-ups.
4. 37 year old 1st generation Mexican-American male. He received his GED and did not pursue further education. He makes about \$65,000 per year. He was self employed for many years, but now works in waste management. He has full benefits with his employer and has an employee paid HMO insurance. He does not feel he pays a lot for his health insurance. He does not see the doctor often, but feels satisfied with his care and doctor. He does have a problem with the cost of insurance. He is a little skeptical about the care doctors give. He feels doctors sometimes over treat their patients to charge insurances more. Overall he is happy with the care and his doctor, but is unsatisfied about the way insurances operate.
5. 25 year old 1st generation Mexican-American female. She received college training and is currently working as a pharmacy assistant. She makes about \$52,000 per year. She has employee paid HMO insurance. She feels she pays a lot of money for her HMO. She does however feel satisfied with the care and her doctor. She is currently pregnant and feels very satisfied with her prenatal care she has been receiving so far. Overall she is very satisfied with her doctor and the care she receives. She would like for insurance to be more affordable. She feels lucky to have a job that offers medical insurance, but it's still very expensive.
6. 58 year old Mexican immigrant male. He did not graduate high school. He does not have legal immigrant status. He makes less than \$15,000 per year. He has an unstable job doing handy work whenever available. He does not have any source of medical insurance. He sees his doctor on a cash basis when on rare occasions he needs to see him. Overall he is satisfied with his care and doctor. He feels insurance should be

accessible to everyone. He also feels health insurance should be cheaper and easier to acquire.

7. 66 year old Mexican immigrant male. He did not receive any formal education. He has permanent residency status. He makes about \$70,000 per year. He is self employed as a local farmer. He does not have insurance because he feels private insurance is too expensive to purchase an outside provider. He gets his medical care in Tijuana, B.C. There he pays his doctor cash. Overall he is satisfied with his care and his doctor. He feels health insurance should be more affordable because otherwise he prefers to pay cash when he feels he needs to see the doctor instead of paying every month for nothing.
8. 38 year old 2nd generation Mexican-American male. He graduated high school and did not pursue further education. He makes about \$45,000 per year. He works in electrical installations. He has a PPO insurance provided through his employer, but paid by him. He sees his doctors frequently and feels he needs to take advantage of having health care and the money he pays to have it. Overall he is satisfied with his care and doctors. He feels he pays a lot to have a PPO and that is why he likes to see his doctors often. He feels insurance should be easier and cheaper to get.
9. 36 year old 1st generation Mexican-American female. She graduated high school. She makes about \$48,000 per year. She currently works for the county of Los Angeles. She has PPO insurance that is provided by her employer, but paid by her. She has a chronic health condition with cancer and sees her doctors frequently. She has been very satisfied with her care and her doctors. She does feel insurance is very expensive and even in jobs that offer good benefits packages it can get expensive. She feels health insurance should be equally accessible to everyone at an affordable price.
10. 34 year old Mexican immigrant male. He graduated high school. He makes about \$53,000 per year. He received automotive training and has his own business. He has health insurance that he is eligible for through his wives insurance benefits. Before he was married he did not have health insurance because it is too expensive to purchase private insurance. He is satisfied with his care and doctor, but he almost never goes and feels it's a waste of money since his wife pays so much to have it. He feels health insurance should be more affordable for everyone to have.

Appendix. 3

Guideline questions for in-depth interviews.

1. Demographics: Age, race, educational level, occupation, immigration status.
2. Do you have any chronic conditions? If yes, what are they?
3. Do you have health insurance? If yes, what type? Ex. Medical, HMO, PPO, etc.
4. What do you think good quality health care is or should be?
5. Are you satisfied with the quality of care you receive?
6. Why do you feel you have good/bad experiences?
7. When you have doubts or questions regarding your treatment plan or health concerns do you feel comfortable asking your doctor or health care provider?
8. How do you feel about the office(s) in which you see your doctor(s)?

9. Are you happy with how the office(s) you visit operates? In terms of waiting period, promptness, professionalism, etc.
10. Overall, what would you say your past experiences have been like with your doctor?
11. Do you think your insurance type influences the type of care you receive or the quality?
12. Are there any last thoughts you would like to say regarding quality health care?