Gobernar es Prever:

Health Management Self-Efficacy

Among a National Sample of Latinx Adults

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Abstract

Chronic diseases, such as cardiovascular disease, diabetes, and chronic lung disease are among the leading causes of morbidity and mortality in the United States. When compared to Non-Hispanic Whites (NHW), minority populations living in the United States, such as Latinx people, are more likely to develop chronic diseases, and develop complications related to the severity of chronic disease. Health promoting behaviors (HPB), such as increased physical activity, eating a healthy diet, and routine preventative medical care and health screenings, are effective in delaying or preventing the development of chronic disease. When compared to their NHW counterparts, Latinx people are less likely to engage and maintain positive health behavior changes to prevent disease development. Self-efficacy of health management and disease prevention is a major factor in adopting HPB. Furthermore, HPB is also influenced by an individual's perceptions, interpersonal and situational factors.

Employing the health promotion model, critical race theory, and intersectionality as theoretical frameworks; as well as hierarchical regression modeling; this dissertation explores the relative impact of aspects of health, built environment, and key demographic domains on the health management self-efficacy of a national sample of Latinx adults. Further, to better understand the unique role of gender, analyses will be performed initially for the entire sample, and then separately for males and females.

This study will be completed by March 2022 and is anticipated to have a budget of $17,638.69. Results will be used to inform how to best apply interventions to enhance health promoting behaviors in Latinx communities. Furthermore, findings from this study can be used to inform necessary policy changes that will support health equity and social justice.

Keywords: Latinx, health promoting behaviors, disease prevention, health disparities

Background

This portion of the dissertation discusses the relative impact of aspects of health, built environment, and key demographic domains on health management self-efficacy of Latinx people. Latinx people are more likely to experience increased morbidity and mortality of preventable chronic disease, yet they are less likely to adopt health promoting behaviors (HPB) to prevent these conditions. While interventions to improve adoption of HPB have been developed for Latinx populations, there are low participation and high attrition rates in these programs. It is important to consider important correlates of health that can influence the adoption of HPB. Health management self-efficacy will be used as the dependent variable.

Furthermore, this section will expand on the impact chronic illness have on individual and national levels. Chronic illnesses diminish life quality and can contribute to the development of additional health complications. The onset of chronic illness is occurring in earlier life stages, including childhood. This is even more evident in minority populations, such as the Latinx population. Additionally, an exorbitant amount of money is spent on managing and treating chronic illness. This cost is a burden on individuals and the nation alike. HPB can prevent or diminish the health and economic burdens caused by chronic illnesses.

To conclude, this section will delve into the effect that gender role may have on an individual's health management self-efficacy. In addition to biological differences, gender roles and family-oriented culture in Latinx people can influence the ability for an individual to adopt HPB. There is a strong emphasis on placing family needs above one's own needs. Furthermore, gender roles may conflict with the adoption of HPB. Gender may have a significant influence on a Latinx person's health management self-efficacy.

Concerning ethnicity, some may prefer the term Latino, which, while referring to all the countries in Latin America, including Brazil and Haiti, also ties certain people together through a history of

colonization. Here, however, the term Latinx is employed. It is similar to Latino, but the "x" erases gender, making the category inclusive of men, women, agendered, trans*, gender-nonconforming, genderqueer and gender-fluid people. Finally, it bears noting that most Latinx people do not use racial terms assigned to them after their arrival in the United States. Instead, most Latinx people around the world refer to themselves based on whichever country or indigenous population they belong to (e.g., Honduran, Mexican, Peruvian, etc.). As a social construct – something that changes over time and within different contexts – identity labels are neither static nor universal.

Statement of the Problem

The key issue discussed in this dissertation is health management self-efficacy. As the largest minority population, which is projected to continue to increase, it is even more urgent that the health needs of the Latinx community are addressed and met. There are various factors that can affect the health management self-efficacy of Latinx people. However, there are still stark health disparities that exist and negatively impact Latinx people. An individual's health quality intersects with every facet of their life as well as their family's, therefore it is imperative that Latinx people are confident in their ability to appropriately manage their health and remain healthy.

The impact that aspects of health, built environment and key demographic domains on health management self-efficacy are layered. The decision to attempt to adopt HPB is made by an individual's assessment of their ability to achieve HPB. Aspects of health, such as factors of health and wellbeing, access to care and determinants of health are comprised of factors that are key to one's belief that HBP are important and worth the effort to achieve. The community and physical environment can also promote or impede the efforts to achieve HPB, therefore these external factors are significant determining health management self-efficacy.

Chronic diseases can often be prevented, or at least minimized, with the adoption of HPB, such as eating healthy (Schulze et al., 2018), increased physical activity (Anderson & Durstine, 2019) and routine medical care and screening (WHO, 2019). A major driver in adopting health promoting behaviors is

attributed to an individual's perceptions which are formed by various domains such as aspects of health, built environment, and key demographic domains. While interventions are developed or adapted for Latinx people, there are still significant barriers to participation and long-term adoption of HPB. To prevent or delay the onset of chronic disease in the Latinx community it is imperative that the correlates to health management self-efficacy is better understood. This is an important step in improving the health of the Latinx population living in the United States and reducing health disparities.

Rationale

This segment describes the dissertation rationale in which the logical reasons, principles, necessity, and importance of the research will be expanded upon. Latinx people make up approximately 20% of the US population making this group the largest minority population (*U.S. Census Bureau QuickFacts*, n.d.). The size of the Latinx community is expected to continue to increase over the next forty years (U.S. Census Bureau, 2018). It is expected that the older adult Latinx population will also increase 134% by the year 2050 (Velasco-Mondragon et al., 2016). This is a significant contrast to that of NHW, which is expected to increase 58% during the same timeframe. As the largest and fastest growing minority group in the US, it is imperative that appropriate health prevention, diagnosis and treatment strategies are identified and applied to improve health and wellbeing among the Latinx population.

When compared to NHW, Latinx people are more likely to develop chronic disease earlier in adulthood (Quinones et al., 2019), and are more likely to have increased morbidity and mortality related to their chronic disease (Aguayo-Mazzucato et al., 2019). The leading causes of disease and death in Latinx people living in the US are predominantly preventable, non-communicable chronic illnesses (Velasco-Mondragon et al., 2016). These illnesses include cardiovascular diseases (Brown et al., 2018; Shaw et al., 2018), diabetes (Aguayo-Mazzucato et al., 2019; Avilés-Santa et al., 2017), cancer (Miller et al., 2018) and liver diseases (Paik et al., 2019). While NHW also have high rates of chronic illnesses (Woolf et al., 2018), Latinx people are more likely to face a poorer quality of life (Nedjat-Haiem et al.,

2021) and increased morbidity rates (Garcia & Reyes, 2018). Although chronic illness is a national issue, Latinx people are disproportionately impacted by the effects and outcomes of these conditions.

While there are interventions that have been developed to improve the adoption of HPB in the Latinx population, these programs often have low participation rates (Adjei Boakye et al., 2018), high attrition rates (McCurley et al., 2017), and the practices may not be sustainable for long periods of time (Aguayo-Mazzucato et al., 2019). To improve overall participation rates for intervention programs that promote health promoting behaviors, it is key that the perceptions of high-risk populations are well understood. Comprehension of these perceptions can be applied to better modify healthcare practices and social policies to support individuals in receiving the support needed to adopt HPB and prevent chronic illness.

In addition, chronic diseases cause a significant strain on the US economy. Health expenditures in the US are approximately double that of other high resource countries, meanwhile population health outcomes such as life expectancy and quality of life are lower (Papanicolas et al., 2018). National health expenditures continue to rise, and are estimated to account for nearly 18% of the Gross Domestic Product (Centers for Medicare and Medicaid Services, 2019). This expense is projected to continue to rise sharply, and these projections are based on data collected prior to the global COVID-19 pandemic. While the long-term impact of this pandemic is widely unknown, it is highly probable that this will only increase the healthcare costs in the US. Furthermore, the economic costs are not unfamiliar to people living in the US as much of the healthcare spending occurs at the household level. Health spending from households was only second to that of the government, 28% vs 29% respectively (Centers for Medicare and Medicaid Services, 2019). Lastly, the economic impact of chronic disease is not strictly limited to direct healthcare costs. Chronic disease significantly contributes to a decrease in work productivity related to both decreased productivity at work and absenteeism (Besen et al., 2018; Fouad et al., 2017; Mitchell & Bates, 2011). Chronic diseases impact the American population on both a national and household level and are not just limited to those who are diagnosed with chronic diseases. It is important for both population and

economic health that health management self-efficacy of Latinx people are understood to develop interventions that attract, attain, and yield successful long-term adoption of HPB in the Latinx population.

Currently, there is a dearth in the literature examining the perspectives and attitudes of health management self-efficacy in the Latinx community. By quantitatively examining the attitudes and perspectives of Latinx people, this research will contribute additional information to help improve the initiation and sustainment of HPB to prevent the development of chronic diseases. Findings from this study can be used to develop interventions and policies that that are better aimed at improving successful adoption of HPB, community health, reduce healthcare expenditures, and reduce health disparities.

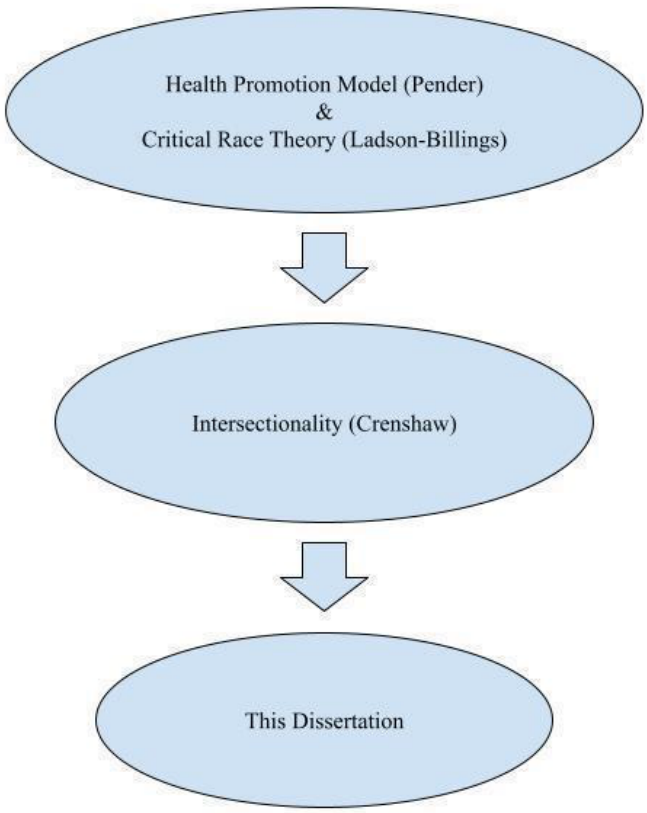
Theoretical Framework

This section is an explanation of the theoretical frameworks that will be used to better understand the impact of the following domains: aspects of health, built environment, and key demographic variables on the health management self-efficacy of the Latinx population.

The theoretical frameworks section will present three theoretical models, primarily by the health promotion model (HPM), and critical race theory (CRT) and secondarily by intersectionality. These frameworks will be used to guide the examination of health management self-efficacy as well as the domains. First, a general summary of the HPM will be presented, followed by a description on how this model will be applied in this study. Additionally, the model will be defined, and each level will be provided. Secondly, there will be a summary of CRT and how this theory is rooted within the HPM. Following this, a review of the intersectionality theory will be provided as it relates to both HPM and CRT. Figure 1 illustrates the connection between the HPM, CRT and intersectionality and how these theories are applied to this body of research.

Figure 1

Theoretical Model



Health Promotion Model

The Health Promotion Model (HPM) is a middle range nursing framework that examines the various factors that can affect an individual's ability to adopt HPB (Murdaugh et al., 2019). In the HPM, HPB are defined as behaviors that an individual can take to achieve or maintain health and wellbeing, rather than a behavior that is reactive to a disease threat (Murdaugh et al., 2019). The HPM components are derived from both social behavior and nursing concepts. The HPM is comprised of three main

components: individual characteristics and experiences; behavior-specific cognitions and affect; and behavioral outcomes. The internal and external factors of an individual, predict the likelihood of successful HPM.

Individual Characteristics and Experiences. Prior experiences with HPB and relevant individual characteristics have been identified as strong predictors of HPB engagement. For example, people with a history of physical activity prior to spinal cord injury were found to significantly be more likely to participate in physical activity after spinal cord injury (Keegan et al., 2012). Relevant individual characteristics, such as biological, psychological, and sociocultural factors, have also been found to be key indicators of HPB success. In a study by Hepburn (2018), obesity was attributed to decreased participation in HPB, such as seeking routine medical care, eating a healthy diet, and routine exercise. Additionally, this study also suggested that women with less than a high school education were found to have poor health literacy capabilities. Findings from these studies demonstrate how individual characteristics can influence the ability of achieving HPB. It is important to consider an individual's characteristics to identify areas that can influence the adoption of HPB.

Behavior-Specific Cognitions and Affect. Perceptions of supportive and hindering factors can also significantly impact an individual's ability in achieving HPB. These factors include: self-efficacy, perceived barriers, perceived benefits and activity related affect (Murdaugh et al., 2019). Self-efficacy has been noted to have a positive correlation to HBP (Hepburn, 2018). In addition, research findings have also indicated that perceived benefits of exercise and physical activity were associated with increased participation in physical activity (Keegan et al., 2012). An individual's perceptions of the HPB are an important factor in achieving HPB. While individual characteristics and experiences are not modifiable, the identification of supportive and obstructive internal factors can inform on how to better adapt methods to achieve HPB.

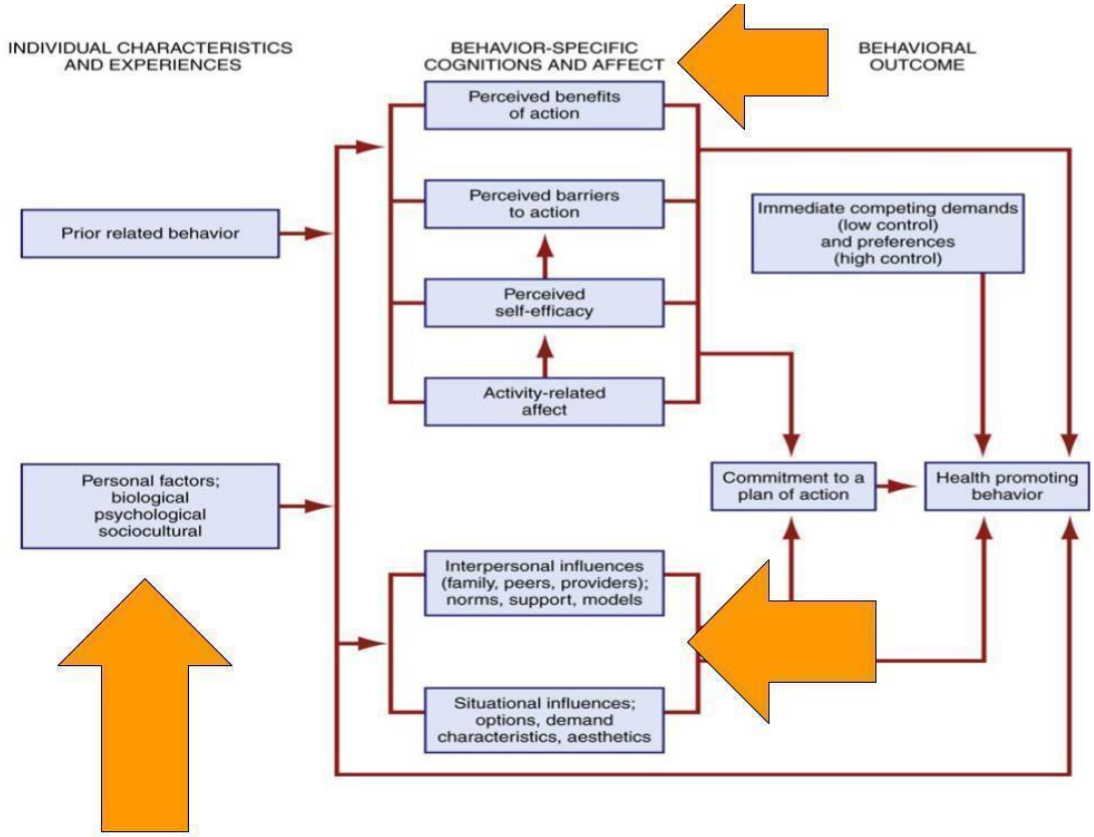
Interpersonal and situational influences have also been found to significantly impact HPB. Social support from peers (Ramchand et al., 2017), and healthcare providers (Perez Jolles et al., 2019) can

enhance or deter HPB adoption. Furthermore, situational factors such as environment (Titus & Kataoka-Yahiro, 2019) can impact HPB adoption. Relationships and interactions that one has with their environment, whether it be social or physical, also need to be considered when studying the correlates of health management self-efficacy.

Nola Pender's Health Promotion Model (HPM) will be used to guide this study as it "identifies background factors that influence health behaviors" (Pender, 2011, pg. 2). This nursing model examines key areas that can be modified through nursing interventions, to help achieve a healthy lifestyle. The HPM acknowledges that there are both internal and external factors that influence health behaviors. Internal factors include the self-examination of risks and benefits, while external factors refer to social and environmental considerations that can hinder or promote the ability to engage and continue in healthy lifestyle behaviors. Using the HBM to guide this study will help identify the behavior specific cognitions and affects that are key to achieving positive lifestyle behaviors that prevent or delay the development of chronic diseases.

Figure 2

Health Promotion Model (Adapted)



Critical Race Theory

With the focus on the Latinx population, it is necessary to incorporate critical race theory (CRT) in this study. CRT urges researchers to view questions, methods, findings, and interpretations through the perspectives of the minority population being studied (West et al., 1995). CRT addresses the normalcy of racism within society. Racism is so embedded into daily life, that it is part of laws and policies that guide health, the economy, societal norms, and subconscious actions. NHW people are unable to comprehend and perceive the racist microaggressions that minority people face daily. Because of this lack of perception and experience, it is important to incorporate the participation and lived experiences of minority people.

The basic tenets of critical race theory revolve on the role that racism has within society (Delgado et al., 2017; Graham et al., 2011). The first tenet focuses on the commonplace role that racism has within society. These are daily actions and attitudes that minority people perceive as microaggressions yet not viewed as such by the majority NHW population. While some of these racist actions and attitudes may be subconscious and not intended to be racist, this further demonstrates the normalcy of racism in society. "Interest convergence" is another tenet of critical race theory. Racism helps advance and support the power of the NHW population. Therefore, there is little motivation to end racism or racist policies due to the loss of power and control that NHW are accustomed to. The next tenant, "social construction" states that concepts like race and ethnicity are social constructs. These constructs, while they may group people with similar features, are not based on genetics or biological ideas. Rather, these groups are frequently used to stereotype and compare social groups. The status of people of minority groups changes as the need and "usefulness" changes in the perspective of the dominant society. More recently people of East Asian descent had been viewed as "model immigrants", however with the Coronavirus pandemic, this group is wrongfully being blamed and physically assaulted for the spread of the virus. Intersectionality is another tenant of CRT. Intersectionality focuses on the idea that people cannot and do not fall in a single category, like race or gender, but rather these identities overlap and can contrast each other. This is another theory that will be used to guide this study and will be described in more detail later in this proposal. The last of the central tenets that make up CRT is the lived experience of minority groups. People who experience racism are the ones who can best describe and interpret it. NHW people are not likely to experience race and racism to the same level and therefore are not able to provide the same level of insight.

The application of CRT is evident in the variables and domains within this research. The experience of race and racism is present in all the components of the HPM; individual characteristics and experiences, and behavior specific cognitions and affect. As noted in the central tenets, race and racism are part of an individual's own characteristics and experiences. Racism and microaggressions faced daily by minority populations mold behaviors and perceptions. Racism is associated with negative mental and

physical health outcomes (Paradies et al., 2015). Implicit bias of healthcare providers is not different than that of the general population (Hall et al., 2015). This can lead to microaggressions, mistrust, and miscommunication among minority populations and their healthcare providers. Additionally, this can also contribute to misdiagnosis and inadequate treatments of health conditions, as most treatments and interventions are based on the NHW male population (Halcomb et al., 2021; Jakubisin Konicki, 2019). Self-efficacy, molded by race and racism, can be noted by observing how factors of health and wellbeing as well as community factors, affect one's own perception of self-efficacy of the prevention and management of health and wellbeing.

The primary aim, analyzing the correlates of self-efficacy in the Latinx population as it relates to maintaining health and wellbeing, acknowledges that there are differences between Latinx and NHW people. This is evident in the health disparity outcomes faced by Latinx people, especially with chronic disease and preventable disease. There is evidence that demonstrates low participation and high attrition rates in interventions that target Latinx people who are at risk for developing chronic illness (Nguyen et al., 2017; Torres et al., 2020). This demonstrates that while interventions have been developed to help this population group, there is still a barrier that exists that prevents or inhibits full participation or adoption of these methods to prevent chronic illness and maintain health. To properly examine health related research that focuses on the Latinx community it is key to view problems, results and interventions with the relevant anthropological factors that are distinct from the majority group. With the application of critical race theory, results and interpretations from this research will have a greater and more meaningful impact that can contribute to the reduction of healthcare disparities.

Intersectionality

Intersectionality urges researchers to view individuals as members of various groups rather than belonging to one specific group. A person is a member of various biological and social groups simultaneously. Belonging to some groups can compound social inequities that one can face. For example, a female who belongs to a minority group experiences discrimination differently than a male of

a minority racial group or of a woman of who belongs to the majority racial group. Crenshaw (1989) coined the term when examining several court cases where Black female plaintiffs faced discriminations, not because they were Black or female, but rather because they were Black and female. Furthermore, Cho, Crenshaw & McCall (2013) describe intersectionality as not just viewing the differences but viewing the sameness of people in various groups. Intersectionality forces the researcher to consider that people live on a continuum, within various social categories that uniquely impact their internal perceptions and experiences with the world. The differences between and within groups must be considered to investigate and begin to resolve social justice issues. By using the research lens of intersectionality, the results and analysis will incorporate the differences and similarities that social and biological groups face in developing and achieving self-efficacy when it comes to maintaining health and wellbeing.

The core concepts of intersectionality revolve around analyzing the relationships of social and biological groups (Hill Collins, 2019). Appropriately, relationality is the first core concept of intersectionality. When using an intersectional lens, the researcher observes how groups are connected and differ in relationship to each other. In other words, relationality examines how groups intersect with each other. The concepts of power, social inequity, social context, complexity, and social justice are how the relationships of groups are examined. By observing how some groups gain power while others are suppressed from attaining it, the sources of social inequity are identified. The real-life ways that these inequities manifest allow for researchers and social justice advocates to better understand when, and how this proliferates throughout society. Since intersectionality exists across several planes, problems and their solutions are complex and must be examined through various relationships such as race, ethnicity, gender, and socioeconomic status. While these complexities exist limitlessly, the onus is on researchers and social justice advocates to determine the most relevant intersections to develop meaningful insights and solutions to social justice issues (Cho et al., 2013). The goal of intersectionality is to view problems and develop solutions to social inequities that exist. Therefore, the application of these findings is a key component of intersectionality. The social justice component implores researchers to not only develop

new knowledge but also use information to drive, support and achieve changes that begin to achieve social equity and justice.

As an inquiry to the factors that correlate to health management self-efficacy of Latinx people, this research question is an intersectional approach to bridge the gap of social inequality and disparities in health outcomes. In this study, self-efficacy is a type of power. It is the belief that one has in themselves to control their own health and wellbeing. If people do not feel that they can control their own health, there is minimal motivation to adopt and apply interventions to stave off preventable illness. The identification of the correlates of health management self-efficacy can help identify sources of social inequity, and how it manifests within society.

Literature Review

The purpose of this chapter is to review relevant literature as it is related to health outcomes of Latinx people, as well as the effect ethnicity and gender have on healthcare outcomes. The central research question of this study focuses on the domains of aspects of health, built environment and key demographics which contribute to the health management self-efficacy in the Latinx population. This research will serve as resource to develop methods that increase participation and long-term adoption of HPB, as well as an instrument to help support meaningful policy changes that enhance the opportunities for Latinx people to live healthier lives. A connection between the academic concepts, theories and research is given to ground the domains used in this dissertation

Ethnicity, Gender and Health Outcomes

Although there has been some progress to improve outcomes for minority populations in the US, substantial health disparities persist. The Affordable Care Act (ACA) sought to make healthcare accessible to more people (Gaffney & McCormick, 2017). While this did result in an increase in Latinx people obtaining access to health insurance, 19% are still uninsured, the second highest uninsured minority group behind American Indian and Alaskan Native population (Artiga et al., 2019). Barriers to

health insurance include: poverty (Titus & Kataoka-Yahiro, 2019), migration status (Cabral & Cuevas, 2020), living in states without expanded Medicaid coverage (Mazurenko et al., 2018), and punitive migration policies (Vernice et al., 2020). Even with health insurance, there are still barriers to accessing adequate healthcare. This has been related to: difficulty navigating the healthcare system (Ghaddar et al., 2018), out of pocket costs (Flavin et al., 2018), language (Diamond et al., 2019) and racism (Vernice et al., 2020). There have been healthcare policies put into effect to improve one facet of healthcare access in minority populations. Despite these improvements, there are multiple factors that continue to impede healthcare access for Latinx people.

Moreover, HPB can also be difficult to achieve and maintain for Latinx people. Knowledge deficits, access and other responsibilities are often barriers of HPB adoption. Significant disparities in health literacy, or the ability to access, understand and apply health information (CDC, 2021), persist in the Latinx population (Canedo et al., 2020; Fleary & Ettienne, 2019). The lack of health literacy, awareness of information and available resources perpetuates misguided or antiquated perceptions HPB attainment based on historical experiences (Blasco-Blasco et al., 2020) and ideologies of healthy food (Brenton, 2017). Furthermore, many interventions are still not culturally tailored for Latinx individuals (Avilés-Santa et al., 2017; Ingol et al., 2020). While factors such as culturally congruent dietary choices are important to the success of HPB adoption (Avilés-Santa et al., 2017; McCurley et al., 2017) other factors need to be considered. Almost 30% of people living in poverty are Latinx (Bureau, n.d.) therefore it is important to consider factors such as competing responsibilities (Bantham et al., 2021), neighborhood safety (Bantham et al., 2021; D'Anna et al., 2018; Joachim-Célestin et al., 2020) and availability of health resources. These resources include food assistance programs (Harnack et al., 2019) and community health workers (Jack et al., 2017). In addition to increased risk for adverse outcomes related to chronic diseases, Latinx people face additional barriers when adopting HPB.

Familismo and gender roles in Latinx culture highlights how ethnicity and gender can impact healthcare. Familismo, a family first approach to decision-making and overall life choices (Sabogal et al., 1987), is common in Latinx culture. The concepts of machismo and marianismo are gendered roles within

in Latinx familismo culture (Nuñez et al., 2016). Machismo describes the capable man, who does not need help from others and is proud of his abilities to lead and support his family. This can-do attitude prevents men from addressing health problems in order to maintain an appearance of a strong person, invulnerable to illness, and putting the needs of their families above themselves (Hawkins et al., 2017). Marianismo describes the wife and mother who is devoted to their family and like Machismo, puts family above all. However, in marianismo, women are expected to be submissive and self-sacrifice their needs to put the needs of the family first. These gender roles demonstrate the schism of gender and ethnicity for Latinx people. More specifically Latinx women feel a sense of marianismo, or a devotion to their spouse and family (Cano et al., 2020). Conversely, familismo can also provide support in adopting HPB. Supportive families contribute to increased levels of confidence and overall wellbeing (Corona et al., 2017). Gender roles and familismo can impact one's health management self-efficacy and overall success of achieving HPB.

Women, Latinx Women and Healthcare Outcomes

Despite comprising half of the population, women have not been included in a lot of healthcare research. Due to this poor representation in healthcare studies, there is less information on how diseases can manifest in women (Halcomb et al., 2021) and the best interventions to prevent or manage disease (Jakubisin Konicki, 2019). Historically, healthcare research has focused on the disease and treatment of NHW men. Most people, lay people (Jakubisin Konicki, 2019) and clinical providers alike (Halcomb et al., 2021; Smith et al., 2018), are unaware of the differences that exist in disease presentation for women. Therefore, women are often underdiagnosed or misdiagnosed for chronic diseases such as cardiovascular disease (Jakubisin Konicki, 2019). Furthermore, women may have different risk factors for chronic conditions, and are unaware that they may be at higher risk for chronic disease (Smith et al., 2018). This lack of awareness delays one from taking the steps to prevent the development of chronic disease. Men and women also have varying approaches to health and healthcare (Courtenay et al., 2002). Factors that may encourage men to adopt HPB, can differ from those that influence women. Recently, there has been a

push to develop research focused on underrepresented populations such as gender and racial/ethnic minority populations ("The 'All of Us' Research Program," 2019), notwithstanding it is important to apply this information to health policies that can also support necessary changes needed to drive meaningful change.

Latinas are both gender and ethnic minorities which can compound health disparities. While studies have shown that women have less risk factors for chronic illness, data demonstrates that this protective factor applies to NHW women (Kanchi et al., 2018) For example, Latinas are more likely to develop diabetes (Kanchi et al., 2018), however even with early identification of risk, Latinas face challenges in adopting HPB (Battarbee & Yee, 2018; Nielsen et al., 2014). These barriers include lack of social support (Mansyur et al., 2015, 2016) which can be significant considering familismo in Latinx culture. Additionally, despite the interventions known to prevent chronic illness, these interventions may not be suitable for younger adults and those who are raising young children (Dennison et al., 2020; Ferrara & Ehrlich, 2011). Understanding the Latina perspectives and drivers of health management self-efficacy can contribute to the development of successful interventions.

Understanding and applying health management self-efficacy and drivers of HPB in Latinas can also yield a multigenerational impact. Latinas are typically primary caregivers to their children (Gieger et al., 2019; Rama et al., 2020). Because of this, Latinas significantly influence habits of their children (Gentner & Leppert, 2019; Maltby et al., 2018). Therefore, helping Latina women achieve HPB significantly contributes to the ability to achieve health equity and reduce health disparities.

Contribution to the Field

Employing the health promotion model, critical race theory and intersectionality, this dissertation will apply secondary analysis of the 2018 National Survey of Health Attitudes dataset to examine the aspects of health, built environment, and key demographic variables on health management self-efficacy for a national sample of Latinx adults. Further, to better understand the unique role of gender, analyses will be performed initially for the entire sample, and then separately for males and females.

Findings from this research will be used to inform how to best engage Latinx people to participate in interventions to initiate and maintain health promoting behaviors. This dissertation will analyze the health management self-efficacy of Latinx people as it relates to HPB. Results from this study can help nurses and other healthcare professionals identify correlates that impact engagement of Latinx people in adopting HPB and integrating these behaviors into their daily routines. Through the adoption of HPB, Latinx people will be able to reduce or eliminate the development of chronic disease and improve health outcomes. Additionally, by reducing chronic illness in the largest minority population in the US, it can be inferred that there will be a reduction in healthcare spending, which can allow for more financial support in reaching policy goals aimed at reducing health disparities experienced by Latinx people. These contributions can collectively benefit the Latinx community by reducing the health disparity gap.

Methods

In this chapter, the methods used for the dissertation will be described. This section will include background on the dataset used, an explanation on how the information was prepared for evaluation, an introduction to the dependent variable, defining the independent variables, and describe the intended analytical plan that will be used in this research study. The analytical plan will also include an overview of the statistical tests to be used in this dissertation

The 2018 National Survey of Health Attitudes

The 2018 National Survey of Health Attitudes (NSHA) is composed of cross sectional-responses from over 7000 adults in the United States (Chandra, 2020). This nationally representative dataset includes adults residing in the four major regions of the United States: Northeast, Midwest, South and West. Furthermore, this diverse sample includes respondents from varying age groups, races/ethnicities, gender, marital status, education level, family income level, number of household members and current job status.

Participants were recruited through nationally representative internet panels. While the surveys were conducted electronically, participants without computer or internet access were provided with these to participate in the survey. The survey consists of 34 questions, some with various parts or sub-questions. Participants completed the survey in a median time of 18-19 minutes. A probability-based sampling method was employed utilized. Participant demographic information was collected separately from the participation of this specific survey.

The 2018 NSHA dataset is utilized for this dissertation as the variables in this research study relate well with the data collected. The NSHA was developed through a collaboration of the RAND corporation and Robert Wood Johnson Foundation to assess and track perceptions on "How people in the United States think about, value, and prioritize health and consider issues of health equity" (RAND, 2019). Responses are used to measure and assess Robert Wood Johnson's (RWJ) efforts in building a Culture of Health through their Action Framework. Additionally, the survey allows researchers to evaluate the alignment of the Action Framework with the US adult population.

The purpose of the Action Framework is to achieve goals that enhance and improve population health interventions and efforts. To reach a Culture of Health, the survey assesses four "action areas": making health a shared value, fostering care and collaboration, creating healthier, more equitable communities, and strengthening the integration of health services and systems. The 2018 NSHA was modified to capture and clarify participant responses and concepts that were not considered in the original 2015 NSHA. This proposed study will employ the results from the 2018 NSHA to examine the relative impact of access to healthcare, built environment, and key demographic variables on perceptions of positive health and well-being for a national sample of Latinx adults.

Analytical Plan

This part of the methods section will describe the dependent variable, domains, the concepts within each domain, and the questions that were selected for this secondary analysis. The dependent variable, self-efficacy of health and wellbeing, will be defined. Subsequently, each domain will be

defined along with its respective concepts. These domains are health and wellbeing, community, and demographics. A complete listing of the potential variables that will be used to measure concepts can be found in Appendix E. This chapter will be concluded by explaining the rationale for each test that will be used for the study, the created tables, research model, and the models that the test will use.

Dependent Variable: Health Management Self-efficacy

The dependent variable for this study will be health management self-efficacy. Coined by Bandura (1977), self-efficacy is the perception an individual has about their own ability to meet a specific goal. Self-efficacy consists of one's evaluation of the perceived benefits, downsides, difficulty, and motivation that one has from achieving that goal. Although self-efficacy is subjective, it has been found to have a significant positive relationship with disease management and positive health behaviors (Guntzviller et al., 2017; Náfrádi et al., 2017). Many Latinx people living in the US have roots from middle and low resource countries (Hernández-Nieto & Gutiérrez, 2017). This can impact the perspectives that people may have on their own capabilities to prevent or manage their own health. People living in Latin America and the Caribbean face many barriers to managing chronic illness that are beyond their own control (Blasco-Blasco et al., 2020). Since many Latinx people have origins from these countries, these beliefs may also follow and permeate in Latinx populations living in the US.

Health management self-efficacy will be measured using the responses to the following questions, "How confident are you that you can manage any health problems you have?" and "How confident are you that you can prevent health problems in the first place?". As illustrated in figure 2, self-efficacy is a key component in achieving health promoting behavior. While this is one of the four internal factors related to behavior-specific cognitions and affect, it is a key in impacting the other three factors. If one does not believe that they possess the skills needed to achieve a goal, they are likely to think about the benefits of adopting health promoting behaviors. While self-efficacy is an internal factor, it is something that people take into consideration in their ability to meet a health promoting behavioral goal.

This dependent variable will include participants' responses to questions on how confident they feel about their ability to prevent and manage health conditions. Through the assessment of the correlates of health management self-efficacy of health and wellbeing, interventions can better target high risk populations and prevent or hinder the development of chronic disease. Based on the available data, the domains of health aspects, built environment and key demographic variables will have a significant impact on the health management self-efficacy of Latinx people.

Aspects of Health Domain

This section explains the aspects of health domain including the concepts and the variables associated within each concept. The concepts that comprise this domain include factors of health and wellbeing, access to care, and determinants of health. This section will describe each concept, operationalization of the variables, rationale for selecting these variables, and hypothesis.

Factors of Health and Wellbeing

The first concept within this domain are the factors of health and wellbeing. It is important to evaluate how Latinx people view factors that affect health and wellbeing to develop interventions that congruent with their perspectives.

This variable is a latent variable in which participants are asked to rate specific things to indicate the effect it has on health. The questions that will make up this domain are all from the same question group and all share the same core question "Here are a list of some things that may affect people's health and well-being. Please rate each on a scale from 1 to 5 where 1 means it has no effect and 5 means it has a very strong effect". The items that will be used are amount of social support, access to affordable health care, education, and income.

Social support can enhance or hinder attempts to adopt HPB. When sources of social support are understanding of the adoption of HPB, they can provide motivation, accountability and remove barriers one can face (Joachim-Célestin et al., 2020; Kelly et al., 2016). Conversely, a lack of social support can

thwarts efforts to successfully adopt HPB (Joachim-Célestin et al., 2020). Social support has also been found to be beneficial in long term attendance of health promoting behaviors that prevent or hinder the development of chronic disease (Fisher et al., 2017).

Based on the current literature, the relationship between education level and HBP is inconsistent. While the relationship between education and HPB in Latinx has been found to have a positive relationship (López & Yamashita, 2018) as with most populations (Ombrellaro et al., 2018), Latinx people with higher levels of education are more likely to have a lower health management self-efficacy (Ward et al., 2019). Moreover, Latinx people with low education levels are associated with poor cardiovascular (Che et al., 2020) and diabetes (Towne et al., 2017) disease outcomes.

The direct and indirect cost of healthcare are important factors that need to be considered when it comes to assessing one's own ability to realistically meet a goal. Despite efforts to expand healthcare affordability and access in the US through the ACA, a significant amount of Latinx people continue to lack coverage (Torres et al., 2020). Additionally, Latinx people cite that affordability is a deciding factor when seeking medical care (D'Anna et al., 2018). Indirect costs are also part of one's decision making and motivation. This includes the cost of healthy food (Daniel, 2020), and physical activity (Bantham et al., 2021). Based on the current literature Latinx people's self-efficacy is derived from their social, economic, and lived experiences which can correlate to health management self-efficacy.

Access to care

Access to care is the second concept that will be measured in this domain. In this survey, access to care is measured by analyzing the responses to four questions. Respondents are asked to state their opinion if marginalized populations have a harder time accessing health care when compared to their less marginalized counterparts. These question all belong to the same question group in which people are asked to respond to the following questions: "When African Americans need health care, do you think it is easier or harder for them to get the care they need than it is for White Americans, or is there not much of a difference?", "When Latinos need health care, do you think it is easier or harder for them to get the

care they need than it is for White Americans, or is there not much of a difference?", "When low-income Americans need health care, do you think it is easier or harder for them to get the care they need than it is for those who are better off financially, or is there not much of a difference?" and "When Americans living in rural communities need health care, do you think it is easier or harder for them to get the care they need than it is for those who live in urban, or is there not much of a difference?". The responses to the questions were "easier", "harder" and "no difference".

In addition to health disparities within Latinx people, Black people also face significant health disparities (Schillinger, 2020). The ACA did allow more people to have access to health care opportunities (K. Griffith et al., 2017), however there are still several people who may have obstacles in accessing affordable health care. This includes people not living in states where the Medicaid was expanded (K. Griffith et al., 2017) and undocumented residents (Artiga et al., 2019). People residing in rural areas are more likely to not participate in HPB when compared to their urban counterparts (Matthews et al., 2017). People residing in rural areas are more likely to die in the hospital with a diabetes related issue (Towne et al., 2017). Based on the current literature, it is hypothesized that Latinx people who identify with challenges to health care access will perceive lower health management self-efficacy.

Social Determinants of Health

Determinants of health contribute to health outcomes in the Latinx populations. This concept is comprised of a latent variable. The questions that make up this variable are all part of the same question group, in which participants are asked to select if they think the item identified is one of the top three reasons why people with lower income live on average 7.5 years less than people with higher incomes. Of the twelve items that comprise this question group, five were selected. Each variable selected corresponds with a different determinant of health: physical, social, access, knowledge and financial.

The average income of Latinx households is significantly less than that of NHW, $39,600 vs. $60,300 respectively (Velasco-Mondragon et al., 2016). Poverty continues to increase in Latinx households as well. Latinx people are more likely to have high-risk jobs and face increased occupational

hazards than NHW (Bulka et al., 2019). Most of the Latinx community resides in areas of high pollution, such as urban and Superfund sites (Amin et al., 2018). These environments expose residents to high levels of polluted air and water. Despite increasing rates, educational attainment is still low in the Latinx population. High school dropout rates for Latinx people are three times that of NHW, and Latinx people are less likely to have at least a bachelor's degree. While education level is often correlated with improved health, this effect was noted to be less protective in immigrant populations including Latinx people (Assari et al., 2020). Responses to this question, when taken into consideration with demographic information will correlate to the perception of health management self-efficacy.

Built Environment Domain

This section explains the built environment domain including the concepts and the variables associated within each concept. The concepts that comprise this domain include sense of community and built environment. This section will describe each concept, operationalization of the variables, rationale for selecting these variables, and hypothesis.

Sense of Community

Sense of community is the first concept in this second domain This concept is a latent variable. Participants are asked to rate how they feel about their own community regarding how they feel that their neighbors and community contribute to their own health. This latent variable is comprised of three questions from the same question group, "The following statements about community refer to your neighborhood. How well do each of the following statements represent how you feel about this community? Not at all, somewhat, mostly, or completely.". The three statements selected from this question group are "I can trust people in this community" "being a part of this community is part of my identity", and "I expect to be part of this community for a long time".

Community involvement in activities to promote health and disease prevention were effective in creating significant change of social norms and awareness (Cho et al., 2013). There is a positive

correlation between community involvement and improved health outcomes related to chronic illness (Haldane et al., 2019). Cohesiveness within the community is also positively associated with self-rated health (Ou et al., 2018). Furthermore, when a community has a shared value of health, health is placed at the center of initiatives, even when it is not the primary focus (Chandra et al., 2016). When a community is actively involved in the entire process of health intervention development, from planning to evaluation, people can improve their built environment and health. However, various factors can influence community engagement such as: trust in government institutions (Ramsbottom et al., 2018), and competing priorities (Fernandez, 2018). Strong community involvement can contribute to higher health management self-efficacy.

Built Environment

The second concept within this domain is built environment. Participants are instructed to rate how much of an impact they feel that the physical environment and where a person lives has on health and well-being. The variables used for this concept are from the same question group used in the concept of factors of health and wellbeing: Here is a list of some things that may affect health and well-being. Please rate each on a scale from 1 to 5 where 1 means it has no effect on health and 5 means it hast a very strong effect. The two items selected from this question group are: physical environment such as clear air or water and where a person lives.

The built environment plays a key role in health promoting behaviors. The built environment is a term that refers to “human-made surroundings that provide the setting or human activity, ranging in scale from buildings and parks or green space to neighbourhoods and cities that can often include their supporting infrastructure, such as water supply or energy networks the built environment is a material, spatial and cultural product of human labour that combines physical elements and energy in forms for living, working and playing.” (Hussain, 2016, pg. 01). These man-made structures play an important role in health outcomes, and efforts to adopt HPB. Cardio-metabolic diseases, such as cardiovascular disease and diabetes, are correlated to various factors related to the built environment (Chandrabose et al., 2019).

HBP are also influenced by the built environment. Factors such as safety (Kärmeniemi et al., 2018), lack of access to nearby stores (Heredia et al., 2021) and living in food deserts (Morrill et al., 2019) and limited access to fitness centers (Wong et al., 2018) influence one's ability to adopt and continue with HPB (Pinter-Wollman et al., 2018). To identify the correlates of health management self-efficacy, it is important to consider the environment that people live, play and work in to develop meaningful policies changes and interventions. As perceptions to built environment's effect on health increase, health management self-efficacy will decrease.

Key Demographics

This section describes the demographics domain. The variables within this domain include demographic information about the Latinx participants who responded to the NSHA survey. Demographics are of primary importance when evaluating HPB (Pender, 2011). While there are an infinite number of demographic factors, the ones that are most relevant to this topic were selected for evaluation. The key demographic variables selected for this study include age, region of residency, marital status, income, level of education, household size and if they have ever lived outside the United States. Age is a key factor as there are changes of health and wellbeing perceptions as people get older (Tan et al., 2018). In addition, older Latinx people have higher relative risk ratio for morbidity than NHW (Tarraf et al., 2020). Despite the US being one single country, region of residence can impact health outcomes. The Southern region of the US has the lowest of rates of people with HPB and forgo medical care (Jr & D, 2017). Latinx people residing in rural areas face multiple barriers to accessing healthcare (Tulimiero et al., 2021). There is also an increased risk of diabetes related deaths in acute care settings in the Southern, Western and Midwestern regions of the US (Ferdinand et al., 2019). The role of familismo (Rama et al., 2020) is key in Latinx culture, therefore it is important to analyze marital status to determine the role of marital status in health management self-efficacy (Leonard et al., 2018). Since familismo and machismo is not limited to married individuals, but rather the nuclear family College educated immigrants were more likely to rate themselves with lower levels of health when compared to non-

immigrants with the same education level (Assari et al., 2020). About one-third of Latinx people are born outside of the US (Flores, 2017). Foreign-born Latinx people are more likely to die from cardiovascular diseases than US born Latinx people (Rodriguez et al., 2017). While acculturation levels cannot be determined by the question "Have you ever lived outside of the United States?", Latinx people who are born and have always lived in the US can be identified. Latinx people who were found to have higher acculturation levels are more likely to have higher health literacy levels (Housten et al., 2019) and weaker attitudes related to familismo (Bostean & Gillespie, 2018).

ANOVAs

A one-way analysis of variance (ANOVA) will be used to determine whether there are any statistically significant differences between the means of three or more independent, unrelated groups.

Pearson's Correlation

Pearson's correlation will be used to find a linear relationship between variables. The results of Pearson's analysis will be used to create the three domains: health and wellbeing, community, and demographics.

Regression Analyses

The first model will examine health and wellbeing (Domain I). The second model will add community (Domain II), and the third model will add the demographic variables (Domain III).

The sample will then be split to examine the role of gender in the self-efficacy of health and wellbeing and will compare the results between males and females. Therefore, Models IV-VI will focus on males, and Models VII-IX will analyze the female Latinx population.

Through these analyses, this research will offer generalized insights and offer recommendations for improving health outcomes of Latinx people.

Figure 3

Logic Model

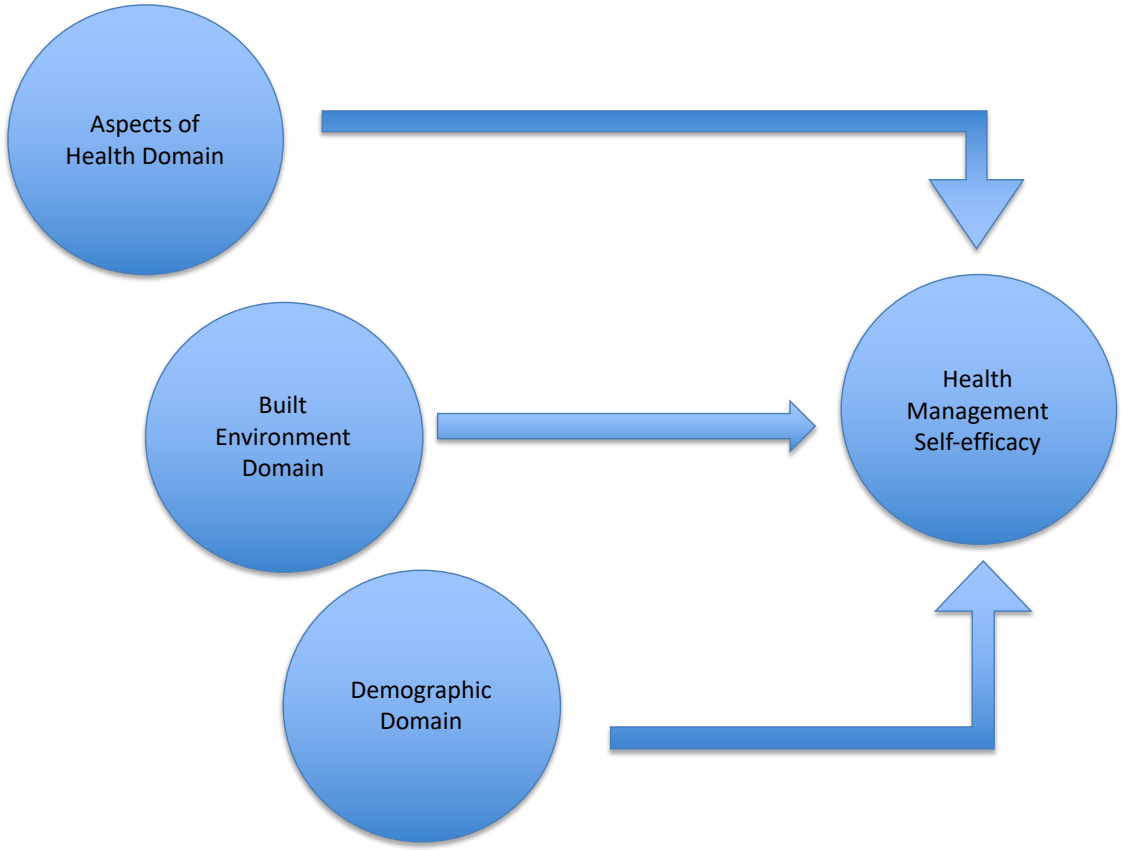


Figure 4

Self-Efficacy of Health and Wellbeing: Latinx People

	All Latinx			Latinx Men			Latinx Women		
	I	II	III	IV	V	VI	VII	VIII	IX
Aspects of Health	×	×	×	×	×	×	×	×	×
Built Environments		×	×		×	×		×	×
Key Demographics			×			×			×

References

Adjei Boakye, E., Varble, A., Rojek, R., Peavler, O., Trainer, A. K., Osazuwa-Peters, N., & Hinyard, L. (2018). Sociodemographic factors associated with engagement in diabetes self-management education among people with diabetes in the United States. *Public Health Reports*, *133*(6), 685–691. https://doi.org/10.1177/0033354918794935

Aguayo-Mazzucato, C., Diaque, P., Hernandez, S., Rosas, S., Kostic, A., & Caballero, A. E. (2019). Understanding the growing epidemic of type 2 diabetes in the Hispanic population living in the United States. *Diabetes/Metabolism Research and Reviews*, *35*(2), e3097. https://doi.org/10.1002/dmrr.3097

Amin, R., Nelson, A., & McDougall, S. (2018). A spatial study of the location of superfund sites and associated cancer risk. *Statistics and Public Policy*, *5*(1), 1–9. https://doi.org/10.1080/2330443X.2017.1408439

Anderson, E., & Durstine, J. L. (2019). Physical activity, exercise, and chronic diseases: A brief review. *Sports Medicine and Health Science*, *1*(1), 3–10. https://doi.org/10.1016/j.smhs.2019.08.006

Artiga, S., Orgera, K., & Damico, A. (2019). *Changes in health coverage by race and ethnicity since implementation of the ACA, 2013–2017*. Kaiser Family Foundation.

Assari, S., Perez, M. U., Johnson, N., Williams, N. R., Carrillo, E., Garcia, L., & Hollis, X. T. (2020). Education level and self-rated health in the United States: Immigrants' diminished returns. *International Journal of Travel Medicine and Global Health*, *hispanic*(3), 116–123. https://doi.org/10.34172/ijtmgh.2020.20

Avilés-Santa, M. L., Colón-Ramos, U., Lindberg, N. M., Mattei, J., Pasquel, F. J., & Pérez, C. M. (2017). From sea to shining sea and the Great Plains to Patagonia: A review on current knowledge of diabetes mellitus in Hispanics/Latinos in the US and Latin America. *Frontiers in Endocrinology*, *8*. https://doi.org/10.3389/fendo.2017.00298

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bantham, A., Taverno Ross, S. E., Sebastião, E., & Hall, G. (2021). Overcoming barriers to physical activity in underserved populations. *Progress in Cardiovascular Diseases*, *64*, 64–71. https://doi.org/10.1016/j.pcad.2020.11.002

Battarbee, A. N., & Yee, L. M. (2018). Barriers to postpartum follow-up and glucose tolerance testing in women with gestational diabetes mellitus. *American Journal of Perinatology*, *35*(04), 354–360. https://doi.org/10.1055/s-0037-1607284

Besen, E., Jetha, A., & Gaines, B. (2018). Examining the likelihood of experiencing productivity loss and receiving social security disability income following the onset of chronic disease. *Journal of Occupational and Environmental Medicine*, *60*(1), 48–54. https://doi.org/10.1097/JOM.0000000000001159

Blasco-Blasco, M., Puig-García, M., Piay, N., Lumbreras, B., Hernández-Aguado, I., & Parker, L. A. (2020). Barriers and facilitators to successful management of type 2 diabetes mellitus in Latin America and the Caribbean: A systematic review. *PLOS ONE*, *15*(9), e0237542. https://doi.org/10.1371/journal.pone.0237542

Bostean, G., & Gillespie, B. J. (2018). Acculturation, acculturative stressors, and family relationships among Latina/o immigrants. *Cultural Diversity and Ethnic Minority Psychology*, *24*(1), 126–138. https://doi.org/10.1037/cdp0000169

Brenton, J. (2017). The limits of intensive feeding: Maternal foodwork at the intersections of race, class, and gender. *Sociology of Health & Illness*, *39*(6), 863–877. https://doi.org/10.1111/1467-9566.12547

Brown, A. F., Liang, L.-J., Vassar, S. D., Escarce, J. J., Merkin, S. S., Cheng, E., Richards, A., Seeman, T., & Longstreth, W. t. (2018). Trends in racial/ethnic and nativity disparities in cardiovascular health among adults without prevalent cardiovascular disease in the United States, 1988 to 2014. *Annals of Internal Medicine*, *168*(8), 541–549. https://doi.org/10.7326/M17-0996

Bulka, C. M., Daviglus, M. L., Persky, V. W., Durazo-Arvizu, R. A., Lash, J. P., Elfassy, T., Lee, D. J., Ramos, A. R., Tarraf, W., & Argos, M. (2019). Association of occupational exposures with cardiovascular disease among US Hispanics/Latinos. *Heart*, *105*(6), 439–448. https://doi.org/10.1136/heartjnl-2018-313463

Bureau, U. C. (n.d.). *Poverty Rates for Blacks and Hispanics Reached Historic Lows in 2019*. The United States Census Bureau. Retrieved August 23, 2021, from https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html

Cabral, J., & Cuevas, A. G. (2020). Health inequities among Latinos/Hispanics: Documentation status as a determinant of health. *Journal of Racial and Ethnic Health Disparities*, *7*(5), 874–879. https://doi.org/10.1007/s40615-020-00710-0

Canedo, J. R., Wilkins, C. H., Senft, N., Romero, A., Bonnet, K., & Schlundt, D. (2020). Barriers and facilitators to dissemination and adoption of precision medicine among Hispanics/Latinos. *BMC Public Health*, *20*(1), 603. https://doi.org/10.1186/s12889-020-08718-1

Cano, M. Á., Rojas, P., Ramírez-Ortiz, D., Sánchez, M., & De La Rosa, M. (2020). Depression and gender roles among Hispanic immigrant women: Examining associations of gender, egalitarianism, marianismo, and self-silencing. *Journal of Health Care for the Poor and Underserved*, *31*(2), 713–723. https://doi.org/10.1353/hpu.2020.0056

CDC. (2021, May 19). *What is health literacy? Take action. Find out.* Centers for Disease Control and Prevention. https://www.cdc.gov/healthliteracy/learn/index.html

Centers for Medicare and Medicaid Services. (2019). *NHE Fact Sheet*. National Health Expenditure Data. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet

Chandra, A., Miller, C. E., Acosta, J. D., Weilant, S., Trujillo, M., & Plough, A. (2016). Drivers Of health as A shared value: Mindset, expectations, sense of community, and civic engagement. *Health Affairs*, *35*(11), 1959–1963. https://doi.org/10.1377/hlthaff.2016.0603

Chandrabose, M., Rachele, J. N., Gunn, L., Kavanagh, A., Owen, N., Turrell, G., Giles-Corti, B., & Sugiyama, T. (2019). Built environment and cardio-metabolic health: Systematic review and meta-analysis of longitudinal studies. *Obesity Reviews*, *20*(1), 41–54. https://doi.org/10.1111/obr.12759

Che, B., Shen, S., Zhu, Z., Wang, A., Xu, T., Peng, Y., Li, Q., Ju, Z., Geng, D., Chen, J., He, J., Zhang, Y., & Zhong, C. (2020). Education level and long-term mortality, recurrent stroke, and cardiovascular events in patients with ischemic stroke. *Journal of the American Heart Association*, *9*(16), e016671–e016671. https://doi.org/10.1161/JAHA.120.016671

Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, *38*(4), 785–810. https://doi.org/10.1086/669608

Corona, K., Campos, B., & Chen, C. (2017). Familism is associated with psychological well-being and physical health: Main effects and stress-buffering effects. *Hispanic Journal of Behavioral Sciences*, *39*(1), 46–65. https://doi.org/10.1177/0739986316671297

Courtenay, W. H., Mccreary, D. R., & Merighi, J. R. (2002). Gender and ethnic differences in health beliefs and behaviors. *Journal of Health Psychology*, *7*(3), 219–231. https://doi.org/10.1177/1359105302007003216

Daniel, C. (2020). Is healthy eating too expensive?: How low-income parents evaluate the cost of food. *Social Science & Medicine*, *248*, 112823. https://doi.org/10.1016/j.socscimed.2020.112823

D'Anna, L., Peong, V., Sabado, P., Valdez-Dadia, A., Hansen, M., Canjura, C., & Hong, M. (2018). Barriers to physical and mental health: Understanding the intersecting needs of Cambodian and Latino residents in urban communities. *Journal of Immigrant and Minority Health*, *20*(5), 1243–1260. https://doi.org/10.1007/s10903-017-0677-2

Delgado, R., Stefancic, J., & Harris, A. (2017). *Critical Race Theory (Third Edition): An Introduction*. NYU Press.

Dennison, R. A., Fox, R. A., Ward, R. J., Griffin, S. J., & Usher-Smith, J. A. (2020). Women's views on screening for Type 2 diabetes after gestational diabetes: A systematic review, qualitative synthesis and recommendations for increasing uptake. *Diabetic Medicine*, *37*(1), 29–43. https://doi.org/10.1111/dme.14081

Diamond, L., Izquierdo, K., Canfield, D., Matsoukas, K., & Gany, F. (2019). A systematic review of the impact of patient–physician non-English language concordance on quality of care and outcomes. *Journal of General Internal Medicine*, *34*(8), 1591–1606. https://doi.org/10.1007/s11606-019-04847-5

Ferdinand, A. O., Akinlotan, M. A., Callaghan, T., Towne Jr, S. D., & Bolin, J. (2019). Diabetes-related hospital mortality in the U.S.: A pooled cross-sectional study of the National Inpatient Sample. *Journal of Diabetes and Its Complications*, *33*(5), 350–355. https://doi.org/10.1016/j.jdiacomp.2019.01.007

Fernandez, M. (2018). Increasing community engagement in Latino residents to improve health outcomes. *Local Environment*, *23*(9), 920–933. https://doi.org/10.1080/13549839.2018.1500530

Ferrara, A., & Ehrlich, S. F. (2011). Strategies for diabetes prevention before and after pregnancy in women with GDM. *Current Diabetes Reviews*, *7*(2), 75–83. https://doi.org/10.2174/157339911794940738

Fisher, E. B., Boothroyd, R. I., Elstad, E. A., Hays, L., Henes, A., Maslow, G. R., & Velicer, C. (2017). Peer support of complex health behaviors in prevention and disease management with special reference to diabetes: Systematic reviews. *Clinical Diabetes and Endocrinology*, *3*(1), 1–23. https://doi.org/10.1186/s40842-017-0042-3

Flavin, L., Zallman, L., McCormick, D., & Wesley Boyd, J. (2018). Medical expenditures on and by immigrant populations in the United States: A systematic review. *International Journal of Health Services*, *48*(4), 601–621. https://doi.org/10.1177/0020731418791963

Fleary, S. A., & Ettienne, R. (2019). Social disparities in health literacy in the United States. *HLRP: Health Literacy Research and Practice*, *3*(1), e47–e52. https://doi.org/10.3928/24748307-20190131-01

Flores, A. (2017). *How the U.S. Hispanic population is changing*. Pew Research Center. https://www.pewresearch.org/fact-tank/2017/09/18/how-the-u-s-hispanic-population-is-changing/

Fouad, A. M., Waheed, A., Gamal, A., Amer, S. A., Abdellah, R. F., & Shebl, F. M. (2017). Effect of chronic diseases on work productivity: A propensity score analysis. *Journal of Occupational and Environmental Medicine*, *59*(5), 480–485. https://doi.org/10.1097/JOM.0000000000000981

Gaffney, A., & McCormick, D. (2017). The Affordable Care Act: Implications for health-care equity. *The Lancet*, *389*(10077), 1442–1452. https://doi.org/10.1016/S0140-6736(17)30786-9

Garcia, M. A., & Reyes, A. M. (2018). Prevalence and trends in morbidity and disability among older Mexican Americans in the Southwestern United States, 1993–2013. *Research on Aging*, *40*(4), 311–339. https://doi.org/10.1177/0164027517697800

Gentner, M. B., & Leppert, M. L. O. (2019). Environmental influences on health and development: Nutrition, substance exposure, and adverse childhood experiences. *Developmental Medicine & Child Neurology*, *61*(9), 1008–1014. https://doi.org/10.1111/dmcn.14149

Ghaddar, S., Byun, J., & Krishnaswami, J. (2018). Health insurance literacy and awareness of the Affordable Care Act in a vulnerable Hispanic population. *Patient Education and Counseling*, *101*(12), 2233–2240. https://doi.org/10.1016/j.pec.2018.08.033

Gieger, A. W., Livingston, G., & Bialik, K. (2019). *6 facts about U.S. moms* (Factank). Pew Research Center. https://www.pewresearch.org/fact-tank/2019/05/08/facts-about-u-s-mothers/

Graham, L., Brown-Jeffy, S., Aronson, R., & Stephens, C. (2011). Critical race theory as theoretical framework and analysis tool for population health research. *Critical Public Health*, *21*(1), 81–93. https://doi.org/10.1080/09581596.2010.493173

Griffith, K., Evans, L., & Bor, J. (2017). The Affordable Care Act reduced socioeconomic disparities in health care access. *Health Affairs*, *36*(8), 1503–1510. https://doi.org/10.1377/hlthaff.2017.0083

Griffith, R. J., Alsweiler, J., Moore, A. E., Brown, S., Middleton, P., Shepherd, E., & Crowther, C. A. (2020). Interventions to prevent women from developing gestational diabetes mellitus: An overview of Cochrane Reviews. *Cochrane Database of Systematic Reviews*, *6*. https://doi.org/10.1002/14651858.CD012394.pub3

Guntzviller, L. M., King, A. J., Jensen, J. D., & Davis, L. A. (2017). Self-efficacy, health literacy, an nutrition and exercise behaviors in a low-income, Hispanic population. *Journal of Immigrant and Minority Health*, *19*(2), 489–493. http://dx.doi.org.ezproxy.gc.cuny.edu/10.1007/s10903-016-0384-4

Halcomb, E., Ashley, C., Middleton, R., Lucas, L., Robinson, K., Harvey, S., Charlton, K., & Mcinnes, S. (2021). Understanding perceptions of health, lifestyle risks and chronic disease in middle-age. *Journal of Clinical Nursing*, *30*(15–16), 2279–2286. https://doi.org/10.1111/jocn.15711

Haldane, V., Chuah, F. L. H., Srivastava, A., Singh, S. R., Koh, G. C. H., Seng, C. K., & Legido-Quigley, H. (2019). Community participation in health services development, implementation, and evaluation: A systematic review of empowerment, health, community, and process outcomes. *PLOS ONE*, *14*(5), e0216112. https://doi.org/10.1371/journal.pone.0216112

Hall, W. J., Chapman, M. V., Lee, K. M., Merino, Y. M., Thomas, T. W., Payne, B. K., Eng, E., Day, S. H., & Coyne-Beasley, T. (2015). Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: A systematicreview. *American Journal of Public Health*, *105*(12), e60–e76. https://doi.org/10.2105/AJPH.2015.302903

Harnack, L., Valluri, S., & French, S. A. (2019). Importance of the Supplemental Nutrition Assistance Program in rural America. *American Journal of Public Health*, *109*(12), 1641–1645. https://doi.org/10.2105/AJPH.2019.305359

Hawkins, J., Watkins, D. C., Kieffer, E., Spencer, M., Piatt, G., Nicklett, E. J., Lebron, A., Espitia, N., & Palmisano, G. (2017). An exploratory study of the impact of gender on health behavior among African American and Latino men with type 2 diabetes. *American Journal of Men's Health*, *11*(2), 344–356. https://doi.org/10.1177/1557988316681125

Hepburn, M. (2018). The variables associated with health promotion behaviors among urban Black women. *Journal of Nursing Scholarship*, *50*(4), 353–366. https://doi.org/10.1111/jnu.12387

Heredia, N. I., Xu, T., Lee, M., McNeill, L. H., & Reininger, B. M. (2021). The neighborhood environment and Hispanic/Latino health. *American Journal of Health Promotion*, 08901171211022677. https://doi.org/10.1177/08901171211022677

Hernández-Nieto, R., & Gutiérrez, M. C. (2017). Hispanic map of the United States 2017. *Informes Del Observatorio / Observatorio Reports*. https://doi.org/10.15427/OR035-11/2017EN

Hill Collins, P. (2019). *Intersectionality as critical social theory*. Duke University Press.

Housten, A. J., Hoover, D. S., Correa-Fernández, V., Strong, L. L., Heppner, W. L., Vinci, C., Wetter, D. W., Spears, C. A., & Castro, Y. (2019). Associations of acculturation with English and Spanish language health literacy among bilingual Latino adults. *HLRP: Health Literacy Research and Practice*, *3*(2). https://doi.org/10.3928/24748307-20190219-01

Hussain, M. (2016). "Built Environment and Health" What we create and how it affects us? *Journal of Humanities and Social Science*, *21*(2), 01–06.

Ingol, T. T., Kue, J., Conrey, E. J., Oza-Frank, R., Weber, M. B., & Bower, J. K. (2020). Perceived barriers to type 2 diabetes prevention for low-income women with a history of gestational diabetes: A qualitative secondary data analysis. *The Diabetes Educator*, *46*(3), 271–278. https://doi.org/10.1177/0145721720920255

Jack, H. E., Arabadjis, S. D., Sun, L., Sullivan, E. E., & Phillips, R. S. (2017). Impact of community health workers on use of healthcare services in the United States: A systematic review. *Journal of General Internal Medicine*, *32*(3), 325–344. https://doi.org/10.1007/s11606-016-3922-9

Jakubisin Konicki, A. (2019). Promoting cardiovascular health in midlife women. *Current Obstetrics and Gynecology Reports*, *8*(4), 145–151. https://doi.org/10.1007/s13669-019-00275-8

Joachim-Célestin, M., Gamboa-Maldonado, T., Dos Santos, H., & Montgomery, S. B. (2020). A Qualitative study on thperspectives of Latinas enrolled in a diabetes prevention program: Is the cost of prevention too high? *Journal of Primary Care & Community Health*, *11*, 2150132720945423. https://doi.org/10.1177/2150132720945423

Jr, T., & D, S. (2017). Socioeconomic, geospatial, and geopolitical disparities in access to health care in the US 2011–2015. *International Journal of Environmental Research and Public Health*, *14*(6), 573. https://doi.org/10.3390/ijerph14060573

Kanchi, R., Perlman, S. E., Chernov, C., Wu, W., Tabaei, B. P., Trinh-Shevrin, C., Islam, N., Seixas, A., Rodriguez-Lopez, J., & Thorpe, L. E. (2018). Gender and Race Disparities in Cardiovascular disease risk factors among New York City adults: New York City Health and Nutrition Examination Survey (NYC HANES) 2013-2014. *Journal of Urban Health*, *95*(6), 801–812. https://doi.org/10.1007/s11524-018-0287-x

Kärmeniemi, M., Lankila, T., Ikäheimo, T., Koivumaa-Honkanen, H., & Korpelainen, R. (2018). The built environment as a determinant of physical activity: A systematic review of longitudinal studies and natural experiments. *Annals of Behavioral Medicine*, *52*(3), 239–251. https://doi.org/10.1093/abm/kax043

Keegan, J. P., Chan, F., Ditchman, N., & Chiu, C.-Y. (2012). Predictive ability of Pender's Health Promotion Model for physical activity and exercise in people with spinal cord injuries: A hierarchical regression analysis. *Rehabilitation Counseling Bulletin*, *56*(1), 34–47. https://doi.org/10.1177/0034355212440732

Kelly, S., Martin, S., Kuhn, I., Cowan, A., Brayne, C., & Lafortune, L. (2016). Barriers and facilitators to the uptake and maintenance of healthy behaviours by people at mid-life: A rapid systematic review. *PLOS ONE*, *11*(1), e0145074. https://doi.org/10.1371/journal.pone.0145074

Leonard, T., Hughes, A. E., Donegan, C., Santillan, A., & Pruitt, S. L. (2018). Overlapping geographic clusters of food security and health: Where do social determinants and health outcomes converge in the U.S? *SSM - Population Health*, *5*, 160–170. https://doi.org/10.1016/j.ssmph.2018.06.006

López, E. B., & Yamashita, T. (2018). The relationship of education and acculturation with vigorous intensity leisure time physical activity by gender in Latinos. *Ethnicity & Health*, *23*(7), 797–812. https://doi.org/10.1080/13557858.2017.1294664

Maltby, A. M., Vanderloo, L. M., & Tucker, P. (2018). Exploring mothers' influence on preschoolers' physical activity and sedentary time: A cross sectional study. *Maternal & Child Health Journal*, *22*(7), 978–985. https://doi.org/10.1007/s10995-018-2474-5

Mansyur, C. L., Rustveld, L. O., Nash, S. G., & Jibaja-Weiss, M. L. (2015). Social factors and barriers to self-care adherence in Hispanic men and women with diabetes. *Patient Education and Counseling*, *98*(6), 805–810. https://doi.org/10.1016/j.pec.2015.03.001

Mansyur, C. L., Rustveld, L. O., Nash, S. G., & Jibaja-Weiss, M. L. (2016). Hispanic acculturation and gender differences in support and self-efficacy for managing diabetes. *The Diabetes Educator*, *42*(3), 315–324. https://doi.org/10.1177/0145721716640905

Matthews, K. A., Croft, J. B., Liu, Y., Lu, H., Kanny, D., Wheaton, A. G., Cunningham, T. J., Khan, L. K., Caraballo, R. S., Holt, J. B., Eke, P. I., & Giles, W. H. (2017). Health-related behaviors by Urban-Rural county classification; United States, 2013. *MMWR Surveillance Summaries*, *66*(5), 1–8. https://doi.org/10.15585/mmwr.ss6605a1

Mazurenko, O., Balio, C. P., Agarwal, R., Carroll, A. E., & Menachemi, N. (2018). The effects of Medicaid expansion under the ACA: A systematic review. *Health Affairs*, *37*(6), 944–950. https://doi.org/10.1377/hlthaff.2017.1491

McCurley, J. L., Fortmann, A. L., Gutierrez, A. P., Gonzalez, P., Euyoque, J., Clark, T., Preciado, J., Ahmad, A., Philis-Tsimikas, A., & Gallo, L. C. (2017). Pilot test of a culturally appropriate diabetes prevention intervention for at-risk Latina women. *The Diabetes Educator*, *43*(6), 631–640. https://doi.org/10.1177/0145721717738020

Miller, K., Goding Sauer, A., Ortiz, A., Fedewa, S., Pinheiro, P., & Tortolero-Luna, G. (2018). Cancer statistics for Hispanics/Latinos, 2018. *CA: A Cancer Journal for Clinicians*, *68*(6), 425–445. https://doi.org/10.3322/caac.21494

Mitchell, R. J., & Bates, P. (2011). Measuring health-related productivity loss. *Population Health Management*, *14*(2), 93–98. https://doi.org/10.1089/pop.2010.0014

Morrill, K. E., Lopez-Pentecost, M., Ballesteros, G., Pfander, J. L., Hingle, M. D., Klimentidis, Y. C., Thomson, C. A., & Garcia, D. O. (2019). Weight loss interventions for Hispanic women in the USA: A protocol for a systematic review. *Systematic Reviews*, *8*(1), 301. https://doi.org/10.1186/s13643-019-1213-3

Murdaugh, C., Parsons, M. A., & Pender, N. J. (2019). *Health Promotion in Nursing Practice* (8th ed.). Pearson.

Náfrádi, L., Nakamoto, K., & Schulz, P. J. (2017). Is patient empowerment the key to promote adherence? A systematic review of the relationship between self-efficacy, health locus of control and medication adherence. *PLOS ONE*, *12*(10), e0186458. https://doi.org/10.1371/journal.pone.0186458

Nedjat-Haiem, Cadet, T., Parada, H., Jones, T., Jimenez, E., Thompson, B., Wells, K., & Mishra, S. (2021). Financial hardship and health related quality of life among older Latinos with chronic diseases. *American Journal of Hospice Ans Palliative Medicine*, *38*(8), 938–946.

Nguyen, A. L., Yan, T., Ell, K., Gonzalez, J., & Enguidanos, S. (2017). Care transitions among Latino diabetics: Barriers to study enrollment and transition care. *Ethnicity & Health*, *22*(4), 361–371. https://doi.org/10.1080/13557858.2016.1244626

Nielsen, K. K., Kapur, A., Damm, P., de Courten, M., & Bygbjerg, I. C. (2014). From screening to postpartum follow-up; The determinants and barriers for gestational diabetes mellitus (GDM) services, a systematic review. *BMC Pregnancy and Childbirth*, *14*(1), 41. https://doi.org/10.1186/1471-2393-14-41

Nuñez, A., González, P., Talavera, G. A., Sanchez-Johnsen, L., Roesch, S. C., Davis, Sonia. M., Arguelles, W., Womack, V. Y., Ostrovsky, N. W., Ojeda, L., Penedo, F. J., & Gallo, L. C. (2016). Machismo, marianismo, and negative cognitive-emotional factors: Findings from the Hispanic community health Study: Study of Latinos sociocultural ancillary study. *Journal of Latina/o Psychology*, *4*(4), 202–217. https://doi.org/10.1037/lat0000050

Ombrellaro, K. J., Perumal, N., Zeiher, J., Hoebel, J., Ittermann, T., Ewert, R., Dörr, M., Keil, T., Mensink, G. B. M., & Finger, J. D. (2018). Socioeconomic correlates and determinants of cardiorespiratory fitness in the general adult population: A systematic review and meta-analysis. *Sports Medicine - Open*, *4*(1), 25. https://doi.org/10.1186/s40798-018-0137-0

Ou, J. Y., Peters, J. L., Levy, J. I., Bongiovanni, R., Rossini, A., & Scammell, M. K. (2018). Self-rated health and its association with perceived environmental hazards, the social environment, and cultural stressors in an environmental justice population. *BMC Public Health*, *18*(1), 970. https://doi.org/10.1186/s12889-018-5797-7

Paik, J. M., Henry, L., Avila, L. D., Younossi, E., Racila, A., & Younossi, Z. M. (2019). Mortality related to nonalcoholic fatty liver disease is increasing in the United States. *Hepatology Communications*, *3*(11), 1459–1471. https://doi.org/10.1002/hep4.1419

Papanicolas, I., Woskie, L. R., & Jha, A. K. (2018). Health Care Spending in the United States and other high-income countries. *JAMA*, *319*(10), 1024–1039. https://doi.org/10.1001/jama.2018.1150

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., Gupta, A., Kelaher, M., & Gee, G. (2015). Racism as a determinant of health: A systematic review and meta-analysis. *PLOS ONE*, *10*(9), e0138511. https://doi.org/10.1371/journal.pone.0138511

Pender, N. (2011). *Health Promotion Model Manual*. University of Michigan.

Perez Jolles, M., Richmond, J., & Thomas, K. C. (2019). Minority patient preferences, barriers, and facilitators for shared decision-making with health care providers in the USA: A systematic review. *Patient Education and Counseling*, *102*(7), 1251–1262. https://doi.org/10.1016/j.pec.2019.02.003

Pinter-Wollman, N., Jelić, A., & Wells, N. M. (2018). The impact of the built environment on health behaviours and disease transmission in social systems. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *373*(1753), 20170245. https://doi.org/10.1098/rstb.2017.0245

Questa, K., Das, M., King, R., Everitt, M., Rassi, C., Cartwright, C., Ferdous, T., Barua, D., Putnis, N., Snell, A. C., Huque, R., Newell, J., & Elsey, H. (2020). Community engagement interventions for communicable disease control in low- and lower- middle-income countries: Evidence from a review of systematic reviews. *International Journal for Equity in Health*, *19*(1), 51. https://doi.org/10.1186/s12939-020-01169-5

Quinones, A. R., Botoseneanu, A., Markwardt, S., Nagel, C. L., Newsom, J. T., Dorr, D. A., & Allore, H. G. (2019). Racial/ethnic differences in multimorbidity development and chronic disease accumulation for middle-aged adults. *PloS One*, *14*(6), e0218462–e0218462. https://doi.org/10.1371/journal.pone.0218462

Rama, C. R., Harris, V. W., Speegle, K., Nelson, N., Moen, D., & Harris, H. J. (2020). Familismo: How eight categories of needs are met in Hispanic American families within the context of Familism. *Advances in Social Sciences Research Journal*, *7*(7).

Ramchand, R., Ahluwalia, S. C., Xenakis, L., Apaydin, E., Raaen, L., & Grimm, G. (2017). A systematic review of peer-supported interventions for health promotion and disease prevention. *Preventive Medicine*, *101*, 156–170. https://doi.org/10.1016/j.ypmed.2017.06.008

Ramsbottom, A., O'Brien, E., Ciotti, L., & Takacs, J. (2018). Enablers and barriers to community engagement in public health emergency preparedness: A literature review. *Journal of Community Health*, *43*(2), 412–420. https://doi.org/10.1007/s10900-017-0415-7

Rodriguez, F., Hastings, K. G., Hu, J., Lopez, L., Cullen, M., Harrington, R. A., & Palaniappan, L. P. (2017). Nativity status and cardiovascular disease mortality among Hispanic adults. *Journal of the American Heart Association*, *6*(12). https://doi.org/10.1161/JAHA.117.007207

Sabogal, F., Marín, G., Otero-Sabogal, R., Marín, B. V., & Perez-Stable, E. J. (1987). Hispanic Familism and acculturation: What changes and what doesn't? *Hispanic Journal of Behavioral Sciences*, *9*(4), 397–412. https://doi.org/10.1177/07399863870094003

Schillinger, D. (2020). The intersections between social determinants of health, health literacy, and health disparities. *Studies in Health Technology and Informatics*, *269*, 22–41. https://doi.org/10.3233/SHTI200020

Schulze, M. B., Martínez-González, M. A., Fung, T. T., Lichtenstein, A. H., & Forouhi, N. G. (2018). Food based dietary patterns and chronic disease prevention. *BMJ*, *361*, k2396. https://doi.org/10.1136/bmj.k2396

Shaw, P. M., Chandra, V., Escobar, G. A., Robbins, N., Rowe, V., & Macsata, R. (2018). Controversies and evidence for cardiovascular disease in the diverse Hispanic population. *Journal of Vascular Surgery*, *67*(3), 960–969. https://doi.org/10.1016/j.jvs.2017.06.111

Smith, R., Frazer, K., Hyde, A., O'Connor, L., & Davidson, P. (2018). "Heart disease never entered my head": Women's understanding of coronary heart disease risk factors. *Journal of Clinical Nursing*, *27*(21–22), 3953–3967. https://doi.org/10.1111/jocn.14589

Tan, S. L., Storm, V., Reinwand, D. A., Wienert, J., de Vries, H., & Lippke, S. (2018). Understanding the positive associations of sleep, physical activity, fruit and vegetable intake as predictors of quality of life and subjective health across age groups: A theory based, cross-sectional web-based study. *Frontiers in Psychology*, *0*. https://doi.org/10.3389/fpsyg.2018.00977

Tarraf, W., Jensen, G. A., Dillaway, H. E., Vásquez, P. M., & González, H. M. (2020). Trajectories of aging among U.S. older adults: Mixed evidence for a Hispanic paradox. *The Journals of Gerontology: Series B*, *75*(3), 601–612. https://doi.org/10.1093/geronb/gby057

The "All of Us" Research Program. (2019). *New England Journal of Medicine*, *381*(7), 668–676. https://doi.org/10.1056/NEJMsr1809937

Titus, S. K., & Kataoka-Yahiro, M. (2019). A systematic review of barriers to access-to-care in Hispanics with type 2 diabetes. *Journal of Transcultural Nursing*, *30*(3), 280–290. https://doi.org/10.1177/1043659618810120

Torres, V. N., Williams, E. C., Ceballos, R. M., Donovan, D. M., Duran, B., & Ornelas, I. J. (2020). Participant engagement in a community based participatory research study to reduce alcohol use among Latino immigrant men. *Health Education Research*, *35*(6), 627–636. https://doi.org/10.1093/her/cyaa039

Towne, S. D., Bolin, J., Ferdinand, A., Nicklett, E. J., Lee Smith, M., & Ory, M. G. (2017). Assessing diabetes and factors associated with foregoing medical care among persons with diabetes: Disparities facing American Indian/Alaska Native, Black, Hispanic, low income, and Southern Adults in the U.S. (2011–2015). *International Journal Of Environmental Research And Public Health*, *14*(5). https://www.mdpi.com/1660-4601/14/5/464/htm

Tulimiero, M., Garcia, M., Rodriguez, M., & Cheney, A. M. (2021). Overcoming barriers to health care access in rural Latino communities: An innovative model in the Eastern Coachella Valley. *The Journal of Rural Health*, *37*(3), 635–644. https://doi.org/10.1111/jrh.12483

U.S. Census Bureau. (2018). *Methodology, Assumptions, and Inputs for the 2017 National Population Projections*. https://www2.census.gov/programs-surveys/popproj/technical-documentation/methodology/methodstatement17.pdf

U.S. Census Bureau QuickFacts: United States. (n.d.). Retrieved August 23, 2021, from https://www.census.gov/quickfacts/fact/table/US/PST045219

Velasco-Mondragon, E., Jimenez, A., Palladino-Davis, A. G., Davis, D., & Escamilla-Cejudo, J. A. (2016). Hispanic health in the USA: A scoping review of the literature. *Public Health Reviews*, *37*(1), 31. https://doi.org/10.1186/s40985-016-0043-2

Vernice, N. A., Pereira, N. M., Wang, A., Demetres, M., & Adams, L. V. (2020). The adverse health effects of punitive immigrant policies in the United States: A systematic review. *PLOS ONE*, *15*(12), e0244054. https://doi.org/10.1371/journal.pone.0244054

Ward, J. B., Feinstein, L., Vines, A. I., Robinson, W. R., Haan, M. N., & Aiello, A. E. (2019). Perceived discrimination and depressive symptoms among US Latinos: The modifying role of educational attainment. *Ethnicity & Health*, *24*(3), 271–286. https://doi.org/10.1080/13557858.2017.1315378

West, C., Crenshaw, K., Gotanda, N., Peller, G., & Thomas, K. (1995). *Critical race theory: The key writings that formed the movement*. The New Press.

WHO. (2019). *Thirteenth General Programme of Work 2019–2023: Promote health, keep the world safe, serve the vulnerable*. World Health Organization Geneva.

Wong, M. S., Chan, K. S., Jones-Smith, J. C., Colantuoni, E., Thorpe, R. J., & Bleich, S. N. (2018). The neighborhood environment and obesity: Understanding variation by race/ethnicity. *Preventive Medicine*, *111*, 371–377. https://doi.org/10.1016/j.ypmed.2017.11.029

Woolf, S. H., Chapman, D. A., Buchanich, J. M., Bobby, K. J., Zimmerman, E. B., & Blackburn, S. M. (2018). Changes in midlife death rates across racial and ethnic groups in the United States: Systematic analysis of vital statistics. *BMJ*, *362*, k3096. https://doi.org/10.1136/bmj.k3096

Appendix A: Chapter Outline

Chapter 1: Introduction

This chapter explains the relative impact of aspects of health, built environment domains and key demographics. An overview of the negative impact of poor health outcomes as related to preventable chronic illness will be provided. Finally, this section will be dedicated to describing how health management self-efficacy can contribute to the adoption of health promoting behaviors.

The theoretical framework being used will help explain, predict, and understand how the domains of aspects of health, built environment and key demographics affect the health management self-efficacy. Additionally, the theoretical framework will be used to provide a lens through which results will be discussed in the following chapters and ground conclusions.

Chapter 2: Background

The literature review will provide an understanding of existing research and discourse applicable to Black male educational outcomes. The literature will cover a number of concepts that impact the health management self-efficacy of Latinx people.

Chapter 3: Methods

This chapter will describe the variables selected from the 2018 NSHA dataset used to facilitate this study. The analytical plan will be presented and inform readers of the planned analyses in this dissertation.

Chapter 4: Results

Univariate and multivariate analysis results will be displayed in this chapter.

Chapter 5: Discussion & Conclusion

This chapter will be used to interpret and describe findings considering past empirical research on the health management self-efficacy in the Latinx population. In addition, a more in-depth explanation of new understandings/insights that have emerged from the dissertation will be suggested.

This chapter and dissertation will conclude on connecting the research findings and interpretations to considering implications, and providing recommendations for best practices for improving health management self-efficacy in respect to HPB in the reduction of health disparities experienced by Latinx people.

Appendix B: Budget

Item	Cost	Total
Computer:	$999.99	$999.99
Printer	$178.90	$178.90
Tuition	$3325.20 x 4 semesters	$13,300.80
Office supplies (toner, paper…)	$100 x 4	$400.00
Cloud Services (Drop Box)	$120.00 x2	$240.00
Internet (home service)	$50.00 x48 mo	$2400.00
Internet extender	$119.00	$119.00
		$17,638.69

Appendix C: Timeline

	2021								2022						
	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.
Proposal draft 1															
Edits to proposal 1															
Finalized selection of Dissertation committee															
Meet with entire committee															
Edits to proposal draft 2															
Final proposal to full committee															
Final edits to proposal															
IRB Submission															
IRB approval															
Writing literature review															
Submit literature review															
Edit/finalize literature review															
Writing intro/background															
Submit intro/background for comments															
Edit/finalize intro/background															
Writing methods															
Submit methods for comments															
Edit/finalize methods															
Data Analysis															
Writing results															
Submit results for comments															
Edit/finalize results															
Writing conclusion/discussion/future directions															
Submit conclusions for comments															
Edit/finalize conclusion															
Finalize full dissertation															
Full dissertation review by committee															
Edits to final dissertation & prepare for defense															
Defend dissertation															
Deposit Dissertation															
Writing for publication															

Appendix D: IRB

The IRB recognizes that the analysis of de-identified, publicly available data does not constitute human subjects research as defined in federal regulations and that it does not require IRB review. Since the 2018 National Survey of Health Attitudes does not identify specific participants by name, approval is being sought in the form of an IRB exemption from The Graduate Center, City University of New York.

Appendix E: Potential Variables to Measure Concepts

Dependent variable	
How confident are you that you can; manage any health problems you have, prevent problems in the first place? Not confident at all, not too confident, somewhat confident, very confident.	Q31_1, Q31_2 *Health Management Self-efficacy*
Domain I: Aspects of Health	
Concept: Factors of Health & Wellbeing	
Here is a list of some things that may affect health and well-being. Please rate each on a scale from 1 to 5 where 1 means it has no effect on health and 5 means it hast a very strong effect. Amount of social support, access to affordable health care, education, income	Q01_AOSS, Q01_atahc, Q01_E , Q01_I *Health and Wellbeing*
Concept: Access to Care	
When African Americans need health care, do you think it is easier or harder for them to get the care they need than it is for White Americans, or is there not much of a difference?	Q14_1 *Black Have It Harder (ref)* *Black Have It Easier* *Black Have It the Same*
When Latinos need health care, do you think it is easier or harder for them to get the care they need than it is for White Americans, or is there not much of a difference?	Q14_2 *Latinx Have It Harder (ref)* *Latinx Have It Easier* *Latinx Have It the Same*
When low-income Americans need health care, do you think it is easier or harder for them to get the care they need than it is for those who are better off financially, or is there not much of a difference?	Q14_3 *Low Income Have It Harder (ref)* *Low Income Have It Easier* *Low Income Have It the Same*
When Americans living in rural communities need health care, do you think it is easier or harder for them to get the care they need than it is for those who live in urban, or is there not much of a difference?	Q14_4 *Rural Have it Harder (ref)* *Rural Have It Easier* *Rural Have It the Same*
Concept: Determinants of Health	
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Genetics (someone's biological makeup)	Q15A_GBM *Genetics*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Personal choices and behavior	Q15A_PCB *Personal Choices*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Discrimination	Q15A_D *Discrimination*

In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Economic resources/how much money they have	Q15A_ER *Economic Resources*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Treatment by society of those with low incomes	Q15A_TBSTLI *Treatment By Society*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Community environment	Q15A_CE *Community Environment*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Access to a good education	Q15A_ATGE *Access To Education*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Access to health care	Q15A_AHC *Access To Healthcare*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Access to health insurance	Q15A_AHI *Access To Health Insurance*
In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? Health information they have	Q15A_HITH *Health Information*
Domain II: Built Environment	
Concept: Sense of Community	
The following statements about community refer to your neighborhood. How well do each of the following statements represent how you feel about this community? Not at all, somewhat, mostly, or completely. I can trust people in this community, being a part of this community is part of my identity, I expect to be part of this community for a long time.	Q17_ICTPI, Q17_BAMOT, Q17_IETBA *Sense of Community*
Concept: Built Environment	
Factors of health and wellbeing; Here is a list of some things that may affect health and well-being. Please rate each on a scale from 1 to 5 where 1 means it has no effect on health and 5 means it hast a very strong effect. Physical environment such as clear air or water	Q01_PESACAOW *Physical Environment*
Factors of health and wellbeing; Here is a list of some things that may affect health and well-being. Please rate each on a scale from 1 to 5 where 1 means it has no effect on health and 5 means it hast a very strong effect. Where a person lives	Q01_WAPL *Where A Person Lives*
Domain III: Demographics	
Age 18-67	DEM_AGE_LONG *Age*
Marital status	DEM_MARITASTATUS_SHORT *Not Married*

Region of residency	DEM_REGION *South (ref)* *Northeast* *Midwest* *West*
Family income 1; Less than $5000 – 17; $200,000 or more	DEM_FAMILYINCOME_LONG *Family Income*
Highest level of education 1; Less than 1st grade - 14; Professional or doctorate degree	DEM_EDUCATION_LONG *Education*
Number of members in household	DEM_HOUSEHOLDSIZE *Household Size*
Lived outside of the US for a year or more	Q34 *Lived Out of US*