DIMENSIONS OF ACCULTURATION AND SEXUAL HEALTH

AMONG U.S. HISPANIC YOUTH

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Hispanic youth living in the U.S. share a disproportionate burden of risk for HIV, other STIs, and teen pregnancies. They also tend to report lower rates of condom use and higher rates of inconsistent condom use than other racial/ethnic groups. Furthermore, immigrant Hispanic adolescents experience a unique burden of sexual risk compared to their non-immigrant counterparts. For example, while immigrant teens are less likely to report having sexual intercourse than native-born teens, they tend to have misconceptions about the transmission of HIV and other STDs (Tsunokai et al, 2012; Hingson et al, 1991), which can lead to poor decisions regarding contraceptive use, inconsistent condom use, transmission of STDs, and teen pregnancy. These outcomes can severely derail the health outcomes, social mobility, and life opportunities of these adolescents. Social researchers have tried to explain these sexual risk disparities using the concept of immigrant acculturation, which is broadly defined as the process of adopting the cultural values and beliefs of a host society. Immigrant acculturation has been shown to play a key role in shaping youth attitudes and behaviors, including sexual risk behaviors (see Lee & Hahm, 2010). Yet, studies have largely overlooked the contextual components of acculturation that have been proposed in theoretical literature, specifically characteristics of the immigrant’s receiving community. Furthermore, studies have not adequately explored the influence of acculturation on two crucial measures of sexual risk: teen pregnancy norms and condom use. Therefore, the current dissertation consists of two unique studies that examine the influence of...
acculturation, at both the individual and neighborhood level, on Hispanic adolescent
teen pregnancy norms and condom use over time. The aim is to fill these important
gaps in the literature and expand on earlier explanations of the relationship between
culture, place, and long-term sexual health. Both studies use nationally-representative
data from the National Longitudinal Study of Adolescent to Adult Health. Overall,
findings suggest an immigrant advantage for both teen pregnancy norms and condom
use, although this advantage functions differently for males and females. Furthermore,
the studies demonstrate the importance of including contextual measures of
acculturation into studies related to Hispanic adolescent sexual health.
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CHAPTER 1
INTRODUCTION

According to the U.S. Census Bureau (2015), there were approximately 55 million Hispanics living in the United States in 2014, representing approximately 17% of the country’s total population. Hispanics are currently the largest and fastest-growing ethnic or racial minority in the nation, with a population size that has increased dramatically since 1960 when it was only 6.3 million (Pew Hispanic Center, 2015). The Census Bureau estimates that the number of Hispanics will reach 128 million by the year 2060, and will constitute 31% of the nation’s population. As the number of Hispanics continues to grow, the health and wellbeing of this population has become of significant concern in the fields of medical sociology and public health.

The U.S. has also experienced a dramatic increase in its number of Hispanic youth. Currently, one in five school children and one in four newborns are Hispanic (Pew Hispanic Center, 2013). Over the next 20 years, the number of Hispanic teens is estimated to grow by 60% while the total teen population will grow by only 8% (National Campaign to Prevent Teen and Unplanned Pregnancy, 2001). This group of young people will undoubtedly play a significant role in shaping American society over the next century. Given the unique health burden faced by Hispanic immigrants and their families, including issues related to poverty, culture clash, language difficulties, and other barriers to access, understanding the factors associated with Hispanic adolescent health outcomes is vital to improving their current and future health and wellbeing.

In recent years, scholarly attention has been directed to the numerous health risk behaviors of American youth, including sexual risk behaviors. For Hispanic youth in
particular, adolescence is not only a time of making choices that set the path for adulthood, but also a time when “they navigate the intricate, often porous borders between the two cultures they inhabit – American and Latin American” (Pew Hispanic Center, 2013). Although research has shown a decline in sexual risk among U.S. adolescents in recent years, Hispanics remain an exception. For example, they have higher teen pregnancy rates than White and Black youth (Martin et al., 2006), lower rates of condom use (CDC, 2012), and higher rates of sexually transmitted infections (STIs), especially syphilis, gonorrhea, chlamydia, and HIV/AIDS (CDC, 2014; 2015). In 2013, Hispanics had a teen birth rate of around 41.7, compared to 39.0 for Blacks, and 18.6 for Whites (Martin, Hamilton, Osterman, Curtin, & Mathews, 2015). That same year, nearly one in three Hispanic females experienced a pregnancy before age 20, a rate that is one and a half times the national average (National Campaign to Prevent Teen and Unplanned Pregnancy, 2016).

These statistics alone are alarming. Yet, when we consider the long-term consequences that these sexual risk behaviors can have for adolescents, the statistics begin to reveal a major public health concern. Sexual risk behaviors can severely affect the physical and psychological health of adolescents over the course of their lifetime. For example, risk behaviors such as early sexual initiation and greater numbers of sexual partners put young people at increased risk for HIV/AIDS or other STIs (CDC, 2016). Along with their own unpleasant symptoms, untreated STIs, such as gonorrhea and chlamydia, can lead to other long-term health problems, such as pelvic inflammatory disease, which is associated with chronic pain, ectopic pregnancy, and infertility. In addition, certain strains of HPV can lead to abnormal cell growth on the
cervix and cervical cancer (Eng & Butler, 1997). Furthermore, sexual risk behaviors have been linked to increased psychological problems, including depression (Brooks, Harris, Thrall, & Woods, 2002) and self-harm behaviors, such as cutting (Brown, Houck, Hadley, & Lescano, 2005). Young females who have been diagnosed with an STI as well as those who use condoms inconsistently are also around twice as likely to have attempted suicide (Houck et al., 2008). In addition, unprotected sex may result in an unintended pregnancy, leading to teenage parents who are less likely to finish high school and more likely to live in poverty.

Given that the majority of Hispanic youth (63%) are either foreign born or second generation (native born to a foreign born parent) (Fry & Passell, 2009), social researchers have attempted to explain this population’s sexual risk disparities using the concept of immigrant acculturation (Afable-Munuz & Brindis, 2006), which is broadly defined as immigrants' adoption of the cultural values and beliefs of a host society. However, much remains to be understood about how the multiple dimensions of acculturation, including its contextual components, influence sexual health. Using Add Health data, this dissertation examines the impact of both individual and contextual components of acculturation on two measures of sexual risk: teen pregnancy norms and condom use. Specifically, the empirical studies included in this dissertation answer the following questions: 1) How do dimensions of acculturation at the individual and neighborhood level influence teen pregnancy norms for U.S. Hispanic adolescents? 2) How do these same dimensions of acculturation influence condom use once these Hispanic adolescents become young adults? 3) How do these effects vary by gender? This multidimensional perspective, along with the richness and longitudinal design of
the dataset, allows for a unique viewpoint on the relationship between culture, place, and long-term sexual norms and behaviors among Hispanic youth.

Dissertation Contribution

Immigrant acculturation has been shown to play a key role in shaping youth attitudes and behaviors (see Lee & Hahm, 2010). Yet, there is currently a great deal of controversy over its link to Hispanic sexual risk behaviors. While some studies have shown an “immigrant advantage” related to sexual risk behaviors, wherein less acculturated youth experience better outcomes, including later onset of sexual initiation, fewer sexual partners, and fewer pregnancies (Adam, McGuire, Walsh, Basta, & LeCroy, 2005; Reynoso, Felice, & Shragg, 1993; Kaplan, Erickson, & Juarez-Reyes, 2002; Afable-Munsoz & Brindis, 2006), studies have also shown the opposite pattern, wherein less acculturation is linked to worse sexual health outcomes, including lower likelihood of having or using a condom, higher rates of unintended pregnancies, and misconceptions about HIV/AIDS (Ford & Norris, 1993; Marin & Marin, 1992; Brindis, Wolfe, McCarter, Ball, & Starbuck-Morales, 1995; Marin & Marin, 1990). Therefore, the current dissertation aims to contribute to this ongoing debate by revealing how this important immigrant characteristic influences two crucial measures of sexual health: teen pregnancy norms and condom use. To date, no studies have explored the influence of acculturation on teen pregnancy norms and very few have explored condom use specifically. Furthermore, despite the numerous studies on immigrant acculturation and its impact on general health behaviors and outcomes, there is little
agreement among scholars on just what comprises acculturation and even less agreement on how to measure it (Kimbro, 2009; Hunt, Schneider, & Comer, 2004; Lara, Gamboa, Kahramanian, Morales, & Hayes Bautista, 2005). While the theoretical literature has conceptualized acculturation as a multidimensional process that is influenced by its social context (Portes & Rumbaut, 2001; Portes & Zhou, 1993), studies have largely overlooked these contextual components of acculturation, specifically the characteristics of the immigrant’s receiving community. Therefore, this dissertation incorporates neighborhood-level measures of acculturation to fill this important gap in the literature.

The fundamental merit of this dissertation lies in its ability to inform social policy and sex education programs aimed at reducing the risk behaviors of Hispanic adolescents. Lara et al. (2005) recommend increasing knowledge and awareness of the role of acculturation among public health planners and implementers so that this factor can be taken into account in the design of these programs. This knowledge could result in strategies that better target Hispanics for sex education services based on acculturation levels. In addition, the community component of this dissertation provides valuable insight into the nature of immigrant neighborhoods. Enhancing the health of immigrant communities is currently a topic of great interest to sociologists, as we begin to see the sources of resiliency and strength that abound in these communities. Developing programs that tap into these resources can have fundamental impacts on the health disparities experienced by immigrant groups and their children.
The structure of this dissertation is set up as follows. Chapter 2 discusses the overarching theoretical background that guides the subsequent empirical studies. Drawing from theories of the immigrant health advantage, theories of neighborhood normative influence, and Portes and Zhou’s (1993) segmented assimilation theory, I come to the conclusion that multiple dimensions of acculturation may influence both sexual health norms and behaviors for Hispanic adolescents and young adults. This chapter also provides an overview of the evolution of theories of immigrant assimilation, from classical perspectives to revisionist approaches that incorporate the importance of social context for assimilation trajectories. It also discusses aspects of Hispanic traditional gender ideology, including the concepts of machismo and marianismo, which may serve as the catalyst by which acculturation influences sexual attitudes, norms, and behaviors. All of these perspectives have contributed to the comprehensive theoretical approach that guided my research design and hypotheses.

Chapter 3 presents the first empirical study of this dissertation. This study explores the relationship between acculturation and teen pregnancy norms among Hispanic adolescents. Using Add Health data, this study answers the question: How do dimensions of acculturation at both the individual and neighborhood level influence the likelihood of teen pregnancy embarrassment for U.S. Hispanic adolescents (aged 12-18)? This relationship is then analyzed separately for each gender, revealing some interesting findings about the differing attitudes towards pregnancy among young Hispanic males and females. The longitudinal design of the data allows me to examine these attitudes towards sexual outcomes reported in Wave II prior to analyzing the
behaviors related to these sexual outcomes in Wave III (which I examine in Chapter 4). Chapter 3 also provides a more detailed literature review pertaining to the specific topic of teen pregnancy norms, along with the hypotheses, methods, findings, and conclusions for this empirical study.

Chapter 4 presents the second empirical study, which examines the relationship between acculturation and condom use among Hispanic young adults. Also employing Add Health data, this study builds on the first by demonstrating that these same dimensions of acculturation can also influence young Hispanic sexual risk behaviors as they become young adults. Specifically, this study answers the question: How do dimensions of acculturation at both the individual and neighborhood level influence the likelihood of condom use during vaginal sex for U.S. Hispanic young adults (aged 18-26)? In this chapter, I once again included a more specific literature review on the topic of condom use, as well as hypotheses, methods, results, and conclusions for this study.

Finally, chapter 5 provides more broad conclusions from the dissertation, including major contributions to the literature, policy and program implications, limitations, and recommendations for future research.

Definitions of Terms

Before going further, there are a few terms that need to be defined and justified for the reader to fully understand the research presented in this dissertation. Other important definitions are provided throughout the body of the text.
Hispanic - The U.S. Census Bureau defines Hispanic as “Americans who identify themselves as being of Spanish-speaking background and trace their origin or descent from Mexico, Puerto Rico, Cuba, Central and South American and other Spanish-speaking countries.” Yet, the Census Bureau does not actually use this definition when counting the number of Hispanics living in the U.S. Instead, it allows each person to identify as Hispanic or not based on their own, personal definition of the term (Passell & Taylor, 2009). Similarly, the Add Health data used for the empirical analysis of this dissertation, allowed respondents to self-identify based on their own interpretation of the term. Thus, in this dissertation, while the use of the term Hispanic generally refers to the first definition, or those who have descended from a Spanish-speaking country, the empirical analysis follows the self-report practices of the U.S. Census Bureau.

Furthermore, while there has been criticism over the term Hispanic and some evidence of a preference among this group to be referred to as Latino/a (Gonzalez & Gandara, 2005), other data show that around half (51%) have no preference for which term is used, and 35% say they prefer Hispanic (Pew Hispanic, 2013). I maintain the use of Hispanic since this is the phrase used in the Add Health survey. If I were to refer to respondents as Latino/a, I would be making an assumption that they also considered themselves as Latino/a since they identified as Hispanic. Yet, I have no data to support this assumption.

Sexual intercourse – When using the phrase sexual intercourse, this dissertation is referring to heterosexual intercourse which occurs between a male and a female. While the Add Health data identifies its LGBT respondents, the particular survey question from Wave III that asks about condom use consistency in the past 12 months
refers to vaginal intercourse only. Further analysis into Hispanic LGBT youth’s condom use is warranted, but is beyond the scope of this study.

_Teen pregnancy norms –_ According to Neugarten, Moore, and Lowe (1965), there are a series of age-appropriate expectations imbedded throughout the cultural fabric of adult life. These sociologists describe a “prescriptive timetable for the ordering of major life events: a time in the life span when men and women are expected to marry, a time to raise children, a time to retire” (p. 711). The societal expectations, or norms, that govern age-appropriate pregnancy contribute to attitudes and behaviors related to experiencing a teen pregnancy. Neugarten and co-authors (1965) also explain that a wide variety of sanctions are imposed by others when individuals deviate from these age-appropriate norms. In this study, I use Add Health survey questions measuring respondents’ embarrassment towards experiencing a hypothetical teen pregnancy, to discover their perceptions of sanctions that would be imposed in this situation.
CHAPTER 2
THEORETICAL BACKGROUND AND PROMINENT LITERATURE

This chapter presents a detailed discussion of the theories and central literature that have guided this dissertation. I begin with a discussion of the evolution of theories of immigrant assimilation and acculturation, followed by an explanation for how these theories have been incorporated into public health studies. Using the concept of the “immigrant advantage,” I describe how traditional Hispanic cultural values, including those related to gender norms, can be both protective and detrimental for adolescent sexual risk behaviors. Finally, I discuss prominent theories and literature that point to the importance of social context in the acculturative process, and how neighborhoods, particularly immigrant neighborhoods, can draw boundaries and create norms for acceptable sexual behaviors.

Theories of Immigrant Assimilation

Previous literature has linked immigrants’ sexual risk behavior to their individual level of acculturation (Smith, 2015; Lee & Hahm, 2010; Adam et al 2005; Villarruel & Rodriguez, 2003; Kaplan, Erickson, & Juarez-Reyes, 2002; Marín & Marín 1990). Broadly defined, acculturation refers to the degree to which an immigrant adopts the norms and values of his or her new host culture. Seemingly a simple concept, the evolution of ideologies surrounding this social process is rather complex. Acculturation is generally considered just one step within a multifaceted process of immigrant assimilation.
Historically, classical assimilation theory took an Anglo-Conformity perspective. In other words, early assimilation scholars suggested that over time and generations, immigrant or ethnic groups would inevitably assimilate into the dominant “White American culture” (Yang, 2000). They posited that immigrants would eventually lose the cultural traditions, values, and beliefs of their home country, adopting those of mainstream American society, which would benefit them as they integrate into the dominant economic, political, legal, and education systems (Yang, 2000). Early theorists, such as Park and Burgess (1921), assumed that this process occurred in linear, step-by-step stages.

It was not until Milton Gordon’s (1964) book, *Assimilation in American Life*, that there were any real improvements in explaining the process of assimilation. According to Alba and Nee (2003), Gordon’s largest contribution was that he emphasized the notion of assimilation as a multidimensional process. His theory included seven stages that immigrant groups progress through on their assimilation path. The first stage is cultural assimilation, or acculturation. He defined acculturation as the process in which members of an immigrant group adopt the language, customs, and traditions of the dominant group in the host society. As they acculturate, immigrant or minority groups not only change the way they speak, but they change their personal characteristics, such as their modes of emotional expression and life goals (Alba & Nee, 2003). Speaking from an American immigration perspective, Gordon described the mainstream “core culture” to which these groups acculturated as the “middle-class cultural patterns of, largely, white Protestant, Anglo-Saxon origins” (Gordon, 1964, p.72).
The second stage in Gordon’s assimilation process is structural assimilation, where immigrant groups assimilate into the institutions of the mainstream society, including attending the same churches, interacting in the same social clubs and political organizations, and living in the same neighborhoods. One of Gordon’s major hypotheses was that “once structural assimilation has occurred… all other types of assimilation will naturally follow” (Gordon, 1964, p. 80-81).

Stage three is characterized by large-scale intermarriage, or amalgamation, where immigrant groups become accepted enough to inter-marry with the dominant group members. Stage four is identificational assimilation, where immigrants begin to self-identify in terms of the host society. Stage five is represented by an absence of prejudice for the immigrant group, while stage six is represented by an absence of discrimination. Finally, stage seven is indicated by civic assimilation, where immigrant groups acquire political power in the host society.

Gordon and the Anglo-conformity perspective have been heavily criticized and modified by recent theorists. First, many scholars argue that classical assimilation theory was based on the experiences of the “old wave” of immigrants, and does not fit the experiences of “new wave” immigrants. While most “old wave” immigrants at the turn of the century were from European countries, immigrants since the 1960’s have been largely from Asia and Latin America. Scholars argue that the processes of acculturation and assimilation experienced by new immigrants may be different from those experienced by earlier immigrants from Europe (Greenman & Xie, 2008).
Second, the classical perspective suggests that immigrant assimilation plays a crucial role in the socioeconomic advancement of immigrant groups into the American middle class (Warner & Srole, 1945; Greenman & Xie, 2008). In other words, assimilation and upward mobility were thought to go hand-in-hand. Contrastingly, recent observations suggest that there may not be a straight-forward relationship between these two concepts. Gans (1992) argued that assimilation may actually have negative outcomes for children of immigrants. This notion came from an expansion to examine outcomes across a wide range of domains (Greenman & Xie, 2008), such as health and crime, and not just socioeconomic outcomes. For example, research has shown a link between assimilation and negative educational outcomes (Rumbaut, 1997), early or risky sexual behavior, and higher risk of substance abuse and delinquency (Harris, 1999; Greenman & Xie, 2008) Portes and Zhou (1993) argue that this is linked to immigrant teens’ “downward assimilation” into the traditions and values of inner city minority groups who are living in poverty.

Furthermore, classical assimilation theory has been heavily criticized for its linear approach to the process of assimilation. The theory implies that with each generation, immigrant groups will progress through standard stages of assimilation with little deviation. At least to some extent, the early theories see assimilation as inevitable and as mentioned, linked to socioeconomic mobility. Gordon was arguing that government policies during that time aimed at “forcing” assimilation weren’t necessary because, over time, immigrants would assimilate on their own. Yet, most recent research argues that there are multiple paths that immigrant groups can take towards assimilation, and that
these paths are not inevitable, but depend on many factors, including the social context into which the immigrant assimilates (Portes & Zhou, 1993; Rumbaut, 1997).

Since the late 20th century and early 2000s, two recent approaches have emerged from these critiques, including Revisionist Assimilation Theory and Segmented Assimilation Theory. These theories focus not only on how the adaptation process takes place, but also the "causal" factors associated with the process. Revisionist Assimilation derives largely from the proposal of Alba and Nee (2003). They proposed to specify the individual, primary-group, and institutional levels that shape the trajectories of ethnic adaptation. They were greatly influenced by Gordon, in that they see assimilation as a multidimensional process. They expand on Gordon, however, by emphasizing that assimilation is influenced by both proximate causes, or those at the individual and social network-level, as well as distal causes, or those embedded in larger structures. In their theory, they acknowledge that assimilation is not a universal outcome, nor does it occur in a straight-line trajectory as proposed by earlier theorists. They argue that assimilation occurs incrementally, as an intergenerational process, and it is influenced by both the individual’s purposive action to assimilate and the unintended consequences of their everyday decisions (Alba & Nee, 2003).

Alba and Nee (2003) also express that one mechanism by which immigrants assimilate is through social networks. They argue that close-knit groups sustain norms that maximize the welfare of members of the group. Close-knit ethnic groups improve the welfare of one another, thus increasing the chances of making a successful transition to the U.S.
Segmented assimilation theory was proposed by Alejandro Portes and colleagues in the early 1990’s (mainly Portes & Zhou 1993). This theory focused more on the second generation, or children of immigrants, living in the U.S. They argued that the outlook for this generation would be very different than that of their parents, especially in terms of their adaptation. For example, in the case of inner city Haitian teens, adopting the outlooks and cultural ways of their surrounding native-born peers means adopting the norms and values of inner city Black youth, and not those of mainstream White America. Thus, based on the common devaluation of education as a vehicle for advancement among black youth, assimilation may not be a step towards social and economic mobility for these youth. Based on this idea, those children of immigrants who remain “firmly ensconced” in their foreign-born communities may, in fact, achieve more success than those who do not (Portes & Zhou, 1993, p. 81).

While classical assimilation theory implies that there is this singular “American” mainstream that immigrants can assimilate into, Portes and Zhou observe that there are several distinct forms of adaptation that depend largely on what sector of American society an immigrant group assimilates. According to Portes and Zhou (1993), these “segments” include: acculturating and integrating into the white middle-class (or “straight-line” assimilation”), assimilating into the underclass (or downward assimilation), or deliberately preserving most of the immigrant community’s values and tight solidarity (or “selective acculturation”).

But what makes immigrants take these different paths of assimilation? Portes and Zhou (1993) argue that the differences have a lot to do with not only individual and family variables, but also the contextual factors of the host country. They use the
concept of “modes of incorporation” to describe these crucial contextual factors, which include the “policies of the host government, the values and prejudices of the receiving society, and the characteristics of the coethnic community” (Portes & Zhou, 1993, p. 83). They stress that individual members with low human capital (or low education, wealth, occupational skills, and English ability) may find access to mobility through community resources and networks. In this case, their ethnicity provides a source of strength (Lara et al., 2005).

While segmented assimilation theory stems from classical assimilation theory, it contradicts the assumption that assimilation will lead to upward social mobility and other positive social outcomes for immigrant groups, particularly when discussing the empirical experiences of the second generation. It further emphasizes Gordon’s point that assimilation is multidimensional, and focuses on the social context of acculturation as a crucial component in the process of assimilation, particularly the communities into which the second generation youth are assimilating.

Because acculturation and assimilation are theoretically considered processes and not outcomes, researchers are challenged in determining exactly how to measure the level of progression of these processes among individuals. The current dissertation recognizes acculturation as a step within assimilation, but also recognizes the possibility of multiple assimilation paths, each of which may result in positive or negative social outcomes for the immigrant, and are largely dependent on the immigrants’ receiving community. Thus, drawing from this theoretical progression of concepts, acculturation is a difficult concept to operationalize quantitatively. The current studies use various proxy measures for individual acculturation, but combined with measures of
neighborhood acculturation to give a more extensive measurement of what contemporary acculturation theorists describe as the “multidimensional process” of acculturation and assimilation.

Immigrant Acculturation and Health

The process of acculturation presents numerous challenges and life changes that could benefit or harm the health of immigrants and their families. Therefore, various perspectives of acculturation theory have been integrated into public health and medical sociology literature. While the classical assimilation perspective would predict better health and wellbeing outcomes for those Hispanics who are more acculturated, this has generally not been demonstrated empirically. In fact, there is a “well-established pattern of relatively advantaged health for immigrants in the U.S.” compared to their native born and assumedly more acculturated counterparts across a wide range of health outcomes (Finch, Do, Frank, & Seeman, 2009). Generally referred to as the “immigrant health advantage,” the “healthy immigrant effect,” or the “immigrant epidemiological paradox” (Flores & Brotanek, 2005; Markides & Coreil, 1986; Teruya & Bazargan-Hejazi, 2013), this theory suggests that, on average, less acculturated immigrants, or those who remain predominantly loyal to the traditional culture of their home country (language, norms, values, and beliefs), have significant health advantages when compared to those who have adopted mainstream American culture (Finch et al., 2009). This phenomenon has been particularly pronounced among Hispanic immigrant groups and the Mexican-origin population in particular.
Specifically, national studies have shown that immigrant Hispanics have rates of fetal deaths (Guendelman, Chavez, & Christianson, 1994), infant mortality (U.S. Department of Health & Human Services, 2000), low birth weight (U.S. Department of Health & Human Services, 2000), and adult mortality (Hummer et al., 1999) that are better than their native born counterparts and nearly identical to those seen in non-Hispanic Whites, despite their relatively lower socioeconomic status. When linked to health risk behaviors of adolescents and juvenile delinquency, such as substance use, violence, and early sexual initiation, lower acculturation is again shown to be beneficial (Gil, Wagner, & Vega, 2000; Brindis et al, 1995; Greenman & Xie, 2008). For example, lower acculturation has been associated with lower risks of binge drinking (Gfroerer & Tan, 2003) and the use of alcohol (Blake, Ledsky, Goodenow, O'Donnell, 2001), marijuana (Gfroerer & Tan, 2003), crack cocaine (Wagner-Echeagaray, Schutz, Chilcoat, & Anthony, 1994), and other illicit drugs among adolescents (Gfroerer & Tan, 2003; Flores & Brotanek, 2005) This theory indirectly suggests that there are certain aspects of Hispanic immigrant culture that reduce the likelihood of poor health outcomes, and that acculturation to U.S. norms strips away these protective factors leading to poorer health and greater likelihood of engaging in health risk behaviors.

In many studies, immigrant generation serves as a proxy for the acculturative process of immigrant families, since, depending on their generational status, adolescents of immigrant families are differentially influenced by and exposed to the dominant U.S. host culture (Chun & Mobley, 2014; Berry, 2003). In other words, despite usually being disadvantaged socioeconomically, the less acculturated first generation immigrants actually outperform their second and third generation peers in many health
and behavioral outcomes (Singh & Yu, 2012; Harris, 1999). Second and third generation children, on the other hand, are more exposed to and influenced by mainstream U.S. culture compared to their first generation family members (Chun & Mobley, 2014). Consequently, they are more likely to endorse attitudes and behaviors that conflict with the traditional culture of the family’s home country, particularly those aspects protective of health (Finch et al., 2009). Indeed, studies have shown that later generation youth tend to experience worse health outcomes and are more likely to engage in health risk behaviors, such as violence, alcohol use, smoking, and drug use, than first generation youth (Harris, 1999; Singh & Yu, 2012, p. 7).

A common explanation for the “immigrant health advantage” phenomenon is some variation of the cultural or social buffering hypothesis, which suggests that the “social networks, stronger family ties, traditional health practices, and strong ethnic identity” of first generation immigrants may buffer the negative effects of low socioeconomic status, discrimination, and other health risk factors (e.g., Albright, Chung, De Marco, & Yoo, 2011). Nonetheless, these protective cultural effects tend to decline as the foreign-born become more acculturated (Lara et al., 2005). Interestingly, there is also some evidence that the effect of acculturation differs by gender (see Lara et al., 2005; Zemore, 2005; Marin, Perez-Stable, & Marin, 1989), and for many health risk behaviors, the “immigrant advantage” appears to be supported for females only. Culturally speaking, this evidence suggests that Hispanic traditional gender norms may be playing an important role in this advantage, as will be discussed in detail later in this chapter.
Immigrant Advantage, Sexual Risk Behaviors, and Teen Pregnancy

Despite some contradictory findings (see Lee & Hahm, 2010), this “immigrant advantage” has also been demonstrated in regards to sexual risk behavior and teen pregnancy. For example, greater acculturation has been found to be detrimental in its link to an earlier onset of sexual initiation for Hispanic adolescents (Adam et al., 2005; Reynoso et al., 1993), as well as a increased number of sexual partners, and a greater likelihood of teen pregnancy among Hispanic females (Kaplan et al., 2002). A literature review from Afable-Munsoz and Brindis (2006) revealed an overall positive relationship between acculturation and sexual activity, intention to have vaginal intercourse, vaginal intercourse in the last 12 months, number of partners in the last year, number of lifetime partners, having anal intercourse, having oral sex, and sexual initiation among Hispanic youth. Again, studies have explained this increased risk associated with greater acculturation by recognizing that it removes the protections offered by traditional Hispanic cultural values. These values include those related to family cohesion (familismo) and respect for authority (respeto), both of which increase parental monitoring, particularly for females, and thus decrease opportunities to engage in risky behavior (Gil et al., 2000; Romero & Ruiz, 2007).

On the other hand, greater acculturation has also been associated with reduced sexual risk for Hispanic adolescents, including a greater likelihood of having or using a condom (Ford & Norris, 1993; Marin & Marin, 1992), lower rates of unintended pregnancies (Brindis et al., 1995, p. 102), and fewer misconceptions about the transmission and prevention of HIV/AIDS (Marin & Marin, 1990). These findings have been explained by the traditional Latino cultural emphasis on motherhood and family
(Giachello, 1994), religious influences (Gibson & Lanz, 1991), and inadequate access to contraceptives among recent immigrants (Russell, Williams, Farr, Schwab, & Plattsmier, 1993). These findings have led researchers to speculate that although greater acculturation may lead to increased rates of sexual risk behaviors, including earlier sexual initiation and more sexual partners, it may also simultaneously lead to greater acceptance of preventive behaviors that minimize sexual risk, such as the use of birth control (Unger, Molina, & Teran, 2000).

The Importance of Gender Norms

Complicating these patterns even more is evidence that acculturation influences the sexual behaviors of males and females differently. For example, Sabogal, Perez-Stable, Otero-Sabogal, & Hiatt (1995) found that acculturation was negatively associated with sexual risk behaviors for Hispanic males, but positively associated with these behaviors for Hispanic females. Specifically, men who had less exposure to mainstream American culture initiated sex at a younger age and reported lower condom use than men who were more acculturated. Females who were less acculturated reported a lower lifetime number of sexual partners. This study suggests that acculturation may have a harmful effect on sexual risk behaviors for Hispanic females and a favorable effect for males.

For decades, sociologists have known that there are gender differences in sexual behaviors and attitudes for the general population. Bem (1981) suggested that individuals become gendered in a society based on their “gender schema,” or a network
of sex-linked cognitive associations that are maintained and transmitted to all members within a culture. It is our gender schema that teaches us acceptable sexual preferences and behaviors for males and females. For example, in general, men tend to initiate sex at an earlier age, have higher numbers of sexual partners in their lifetime, and feel more capable about initiating condom use than women (Sabogal et al., 1995; Farmer & Meston, 2006). Furthermore, research suggests that individual perceptions of masculinity and femininity are very influential on sexual behaviors. From the male perspective, evidence has shown that boys who hold traditional beliefs about masculinity report “more sexual partners in the past year, a less intimate with the current sexual partner, and greater belief that relationships between women and men are adversarial” (Pleck, Sonenstein, & Ku, 1993, p. 24). In addition, masculine males had more negative attitudes toward condom use, lower condom use, less belief in males’ responsibility to prevent pregnancy, and a greater belief that pregnancy validates masculinity (Pleck et al, 1993). Pleck and colleagues concluded that holding traditional perceptions of masculinity could put individuals at increased risk for unintended pregnancies and STIs. From the female perspective, gender theorists have argued that traditional femininity hinders a woman’s ability to refuse sex and is very influential to whether women initiate discussions about safe sex practices with their partners (Amaro, 1995). Furthermore, traditional femininity and traditional gender dynamics in a relationship have been linked to discomfort with discussing and using condoms (MacCorquodale, 1984), with discussing one's sexual desires (Koblinsky & Palmeter, 1984), and increased rates of teen pregnancy (Ireson, 1984).
Yet, cultures also vary in terms of what constitutes the “norm” of masculinity and femininity, and research suggests that gender differences tend to be more pronounced among U.S. Hispanics compared to Whites (Adam et al., 2005). Hispanic men tend to have more permissive attitudes towards sex than women, and Hispanic students in general reported that it is more acceptable for men to be sexually experienced before marriage than women. These gender differences occur similarly among adolescents. For example, Adam et al. (2005) found that Latino boys were more likely to initiate sexual intercourse than Latina girls in a study of youth age 12 to 18.

It is important to recognize, however, that gender role orientations can change and are influenced by the gender-role values of the dominant culture of exposure. Thus, the adoption of American gender role ideologies is one aspect of the acculturation process. Although adherence to traditional gender roles is not measured directly in this dissertation, it is an important component of the values and beliefs that immigrants adopt as they acculturate. Studies have shown that later generations of Hispanics were less traditional than earlier generations in their ideas about sexuality. Specifically, more acculturated individuals were less likely to perceive that sexual talk is disrespectful and that female virginity is important compared to the less acculturated (Deardorff, Tschann, & Flores, 2008). Traditional Hispanic gender ideas include the concepts of machismo and marianismo, which are distinctly unique from American ideas of traditional gender roles.

Machismo refers to the male aspects of Hispanic gender role socialization that emphasize paternalistic authority within the family, as well as protectiveness, courage, and honor (Marin, 2003; Upchurch, Aneshensel, Mudgal, & McNeely, 2001). In
traditional families, male superiority is important in the determination of sex roles and behavior (Phinney & Flores, 2002; Mayo & Resnick, 1996). Stereotypically, machismo is often associated with negative characteristics such as domestic violence, infidelity, alcoholism, aggressiveness, and risk-taking behavior, although it can also be considered a positive cultural norm, which instills traits such as honor, respect, bravery, dignity, and family responsibility within young Hispanic men (Gutmann, 1996). From a young age, Hispanic men in traditional families are granted more freedom than females and are subject to less parental monitoring (Cota-Robles & Gamble, 2006). Studies have noted that, to prove manhood, young men who report more machismo also seek more sexual partners, take more risks, report creating more pregnancies, and being more coercive sexually (Marin, Gomez, & Hearst, 1993; Goodyear, Newcomb, & Allison, 2000). In general, this cultural norm gives men control over sexual encounters and condom use.

Marianismo, a term first coined by Stevens (1973), represents the feminine side of Hispanic gender specialization within the family. This cultural concept derives from marianism, or the movement within the Roman Catholic Church that gives special veneration to the figure of the Virgin Mary. It emphasizes similar values of what would be considered traditional femininity in American culture such as submissiveness, agreeableness, and domesticity. However, marianismo is a very unique cultural concept that also adds in values of virtuosity, sexual purity, high levels of spirituality, and self-sacrifice for the good of the family. In other words, it promotes the image of a woman who reflects the characteristics of the Virgin Mary (Sastre et al., 2015). The sexual morality norm of marianismo in particular is interesting. While it is generally acceptable
for males to have a wife and mistress along with other casual sexual encounters, the female is considered to be “morally superior” to the man and more in control of her sexual desires. Therefore, it is not acceptable for her to have numerous sexual partners or any kind of casual sex. In addition, women who are knowledgeable about sex or sexually experienced are often seen as bad or dirty (Sastre et al., 2015).

Adherence to *machismo* and *marianismo* may influence Hispanics’ attitudes, knowledge, and behaviors related to sex, contraception, and pregnancy. Many studies suggest that these cultural values likely promote unprotected sex and inconsistent condom use, contributing to the significant risk of Hispanics for HIV/AIDS and other STIs. For example, compared to non-Hispanic females, Hispanic females perceive that they have less sexual power in their relationships to make decisions about condom use (Gomez & Marin, 1996). Ortiz and Casas (1990) found that the use of contraception among Mexican American women was influenced by their perceptions of male dominance. Furthermore, Hispanic women tend to report being embarrassed to buy condoms and afraid of their partners negative reactions to their requests to wear them (Faulkner, 2003). These results suggest that Hispanic traditional gender roles, or the specific cultural norms of *marianismo*, may limit Hispanic females’ knowledge about safe sex as well as their comfort in negotiating condom use and their perceived power in their relationships. This may put them at increased risk for STIs and unintended pregnancy (Jarrett, 2011). Besides contraceptive behavior, *marianismo* may also directly encourage motherhood and young motherhood for Hispanic females. For some, the importance of motherhood may be culturally sanctioned as a rewarding role in and
of itself, with education and career opportunities placed as a lower priority (Guilamo-Ramos et al., 2007).

Yet, other studies have clarified the direction of this relationship, suggesting that adherence to machismo/marianismo is protective in many ways for Hispanics’ sexual risk behaviors. For example, Kaplan et al. (2002) found that those who endorsed more traditional ideas about gender delayed sex longer than participants who were more non-traditional. Furthermore, Cholka (2012) found that females with greater adherence to marianismo reported greater condom use, and similarly, Villarruel et al. (2007) found that high agreement with traditional gender roles was correlated with greater intentions to use condoms in the next three months. From the male perspective, Sastre et al. (2015) found that Hispanic men who adhere to traditional machismo tend to use condoms, although their condom use behavior is influenced by their classification of women into ‘dirty-clean’ dichotomy (Sastre et al., 2015). According to the authors,

> the classification of women takes place within the cultural fabric of machismo so as to maintain men’s control over the sexual encounter and gender power relations. Thus, engaging in protective behaviors when risky provides men with the ability to control sexual encounters and lower the risk of infection without having to put aside other macho behaviours (e.g., sex with multiple sexual partners [Marin, 2003]." (p. 676)

Thus, these gender norms present possibilities for both protection and risk depending on the gender and the sexual outcome (i.e. sexual initiation, condom use, number of sexual partners, etc.).

For adolescents, marianismo norms may also serve as a protective factor for unmarried teen pregnancy as they reduce the likelihood of participating in sexual activity by providing models of positive behavior (i.e. Virgin Mary) and establishing personal and
social sanctions against sexual activity. In traditional Hispanic families, *marianismo* lends to more strict rules and parental monitoring for adolescent females compared to males (Jarrett, 2011). Qualitative findings from one study explained that this strict monitoring of Hispanic daughters may stem from parental fears of the daughter becoming pregnant (Jarrett, 2011). Young women are expected to be dutiful and obedient to their parents, and parental *respeto* is a central value of *marianismo* ideology (Castillo, Perez, Castillo, & Ghosheh, 2010). In another study, Salvadoran mothers of daughters expressed the cultural expectations that they should *controlar* (control) their daughters, making sure they are not with boys without supervision (Carranza, 2013). Some teen respondents explained a sense of fear of disappointing their mothers which discouraged them from engaging in sexual risk behaviors. They describe a fear of being kicked out of their homes if they ended up pregnant or being forced into marriage with the father of the child. Hence, engaging in sexual activities or experiencing dishonorable situations that conflict with parental values, such as an unmarried teen pregnancy, may not be a viable option for these young women. Thus, the author concludes that the strong influence of family socialization, strict rules, and parental monitoring experienced by Hispanic females may discourage them from engaging in sexual risk behaviors. These experiences may also help shape the sexual attitudes among these young females.

The Multidimensional Nature of Acculturation

Despite the numerous studies incorporating immigrant acculturation as a predictor of adolescent wellbeing, there is little agreement among scholars of just what
constitutes acculturation and less still on how to measure it (Kimbro, 2009; Hunt et al., 2004; Lara et al., 2005). Today, immigrant generation is perhaps the most widely used indicator of acculturation (Phinney & Flores, 2002; Valentine & Mosley, 2000), as it is assumed that later generations are likely to become more involved in the mainstream culture and retain less of their ethnic culture than earlier generations. Studies have supported this notion with evidence that the behaviors and values of immigrants change over time in a new culture (Valentine & Mosley, 2000). Yet, another commonly used measure, language proficiency and/or usage, is often considered a better expression of cultural behavior (Barona & Miller, 1994). Acquiring the English language is seen as a sign of high involvement in the new society, while the retention of the Spanish language is seen as a sign of lower involvement. While these individual measures of acculturation have a certain amount of face validity, used on their own, they simplify an otherwise complex, multilevel, and multidimensional process. As discussed previously, the theoretical literature, on the other hand, has conceptualized acculturation as a multidimensional process that is influenced by its social context (Xie & Greenman, 2011; Kimbro, 2009; Greenman & Xie, 2008; Sabatier, 2008; Portes & Zhou, 1993). In other words, the entire process of acculturation may be influenced by the community into which the immigrant settles and resides. For example, an adolescent who is a third generation immigrant and speaks English would be assumed to be highly acculturated based on the individual “proxy” measures of acculturation. While this may be the case, the youth could also live and attend school in an ethnically-homogenous, immigrant community, allowing little opportunity for cultural assimilation. He may retain a great deal of traditional values and beliefs related to sex, gender, and family values that a
third generation Hispanic living in a middle-class, White neighborhood would not. Therefore, in this dissertation, I include contextual acculturation measures at the neighborhood level along with individual measures of acculturation to examine their importance in predicting adolescent sexual norms and behaviors.

Perspectives on Neighborhood Normative Influence

Researchers have pondered the impact of neighborhood context on individual and social outcomes for decades. Wilson (1987) spawned a great deal of work that emphasized the importance of neighborhoods, theorizing that individuals’ actions are shaped by where they live. Subsequent empirical research has shown that neighborhood characteristics, such as ethnic composition, socioeconomic status, crime rates, proportion of idle youth, and employment opportunities, can significantly impact the norms and behaviors of residents (Ross & Mirowsky, 2001; Cubbin, Santelli, Brindis, & Braveman, 2005; Mosher, Deang, & Bramlett, 2003; Brewster, 1994; Billy, Brewster, & Grady, 1994) Brewster, Billy, and Grady (1993) suggest that communities may create a predominant normative climate that marks the boundaries of acceptable behavior. They suggest that community norms directly constrain individual behavior, by proscribing the particular acts in which adolescents engage, as well as indirectly constrain, by proscribing the particular social, economic, political, and religious institutions that influence the adolescents’ values. Thus, an adolescent’s community can create a normative environment that shapes the values he/she attaches to early childbearing or condom use.
As previously discussed, Portes and Zhou’s (1993) segmented assimilation theory supports this perspective. Particularly for immigrant youth, assimilating into the poor, inner-city neighborhoods of more acculturated minorities, for example, may promote “downward assimilation” or acculturation into “oppositional youth culture” found among their native minority peers (Portes & Rumbaut, 2001; Portes & Zhou, 1993). Over a third of all Latino youth live in neighborhoods of concentrated poverty with exposure to crime and low-quality housing, schools, and opportunities (Murphy, Guzman, & Torres, 2014) These types of neighborhoods and their schools may encourage behaviors such as joining gangs, dropping out of school, or engaging in health risk behavior, such as substance use, violence, risky sex, or unmarried teen childbearing. A less acculturated, immigrant neighborhood, on the other hand, may be protective for immigrant children (Xie & Greenman, 2011), despite a high poverty rate. With dense and overlapping social networks, Zhou and Bankston (1998) argue that the immigrant enclave will typically reinforce more traditional values and norms, and instill them in its youth. Browning, Leventhal, and Brooks-Gunn (2004) highlight the protective nature of immigrant neighborhoods, emphasizing their high social organization, social capital, and “collective efficacy,” or the ability of residents to supervise the behaviors of resident adolescents and create a normative climate that encourages values of the home culture. They stress that collective efficacy forms to monitor the expectations of the neighborhood residents, including the outcomes they expect of their local youth. While originally described as a mechanism for controlling “public behavior” such as crime and delinquency among youth (Sampson, Raudenbush, & Earls, 1997), Browning and colleagues demonstrated its importance in regulating adolescent “private behavior,”
including sexual behavior. Thus, a high immigrant concentration may engender a normative climate that draws boundaries of acceptable behavior (Brewster et al., 1993), including those related to unprotected sex and unmarried teen pregnancies and births.

Levels of neighborhood acculturation, often measured by the proportion of the neighborhood that is foreign born or non-English speaking (Kimbro, 2009; Miller et al., 2009), has been associated with various health outcomes and behaviors for residents. For example, neighborhood immigrant concentration has been linked to lower mortality for Mexican Americans (Eschbach, Ostir, Patel, Markides, & Goodwin, 2004) and lower rates of low birth weight babies for immigrants in general (Finch, Lim, Perez, & Do, 2007). It has also been linked to lower levels of emotional-behavioral problems among children living in immigrant families (Georgiades, Boyle, & Duku, 2007), improved dietary habits (Lee & Cubbin, 2002), lower rates of substance abuse (Kulis, Marssiglia, Sicotte, & Nieri, 2007), and decreased violent behavior among adolescents (Sampson, Morenoff, and Raudenbush, 2005). It has even been associated with various sexual health outcomes and behaviors for male and female residents. In an extensive mixed methods study of neighborhoods teen birthrates, Denner, Kirby, Coyle, & Brindis (2001) found that areas with lower than expected teen birthrates given their higher levels of poverty, tended to also have high concentrations of Hispanic, foreign born, and linguistically isolated residents. Interviews with local residents revealed that these areas had close ties among residents that resulted in “the maintenance of traditional values about commitment to family and community, respect for family and family reputation, close ties to religious institutions, and the control, close monitoring, and protection of girls” (14). Brewster et al. (1993) found similar protective effects for non-Hispanic
residents, where White females were less likely to become sexually active during adolescence when living in highly foreign born neighborhoods. For males, however, the percentage of Hispanic residents in adolescent males’ neighborhoods was negatively associated with use of contraception at last intercourse (Ku, Sonenstein, & Pleck, 1993). Although limited, these findings suggest gender differences in the effects of neighborhood acculturation and co-ethnicity on sexual health behaviors.

The aforementioned research and theoretical frameworks have guided the empirical studies and hypotheses within this dissertation. I will now discuss the two original research studies, including methods, results, and conclusions.
CHAPTER 3
DIMENSIONS OF ACCULTURATION, GENDER, AND TEEN PREGNANCY NORMS

Teenage childbirth can result in a multitude of adverse health and social consequences for both the parents and children. For example, adolescents with children are at an increased risk of dropping out of school and living in poverty. Only around 50% of teen mothers receive a high school diploma by age 22, versus 90% of non-teen mothers (Perper, Peterson, Manlove, 2010), thus resulting in limited access to career opportunities. Teen moms are also more likely to experience family conflict, depression, and a lack of access to prenatal care. Furthermore, babies born to teen mothers are at increased risk for low birth weight, preterm birth, and infant death compared to those born to women over age 20 (Martin et al., 2012; Martin, Osterman, & Sutton, 2010; Mathews & MacDorman, 2013). When they grow up, children of teen parents are more likely to have poor performance in school, to drop out of high school, and to be incarcerated at some point during adolescence (Hoffman, 2008). For these reasons, the public costs of teen births are estimated at over $9 billion annually (National Campaign to Prevent Teen and Unplanned Pregnancy, 2013).

U.S. teen childbearing has declined continuously since 1990. The rate, however, is still one of the highest of the developed world (Sedgh, Finer, Bankole, Eilers, & Singh, 2015). Nearly one in three girls experience a pregnancy before age 20, and more than one in six has a teen birth (Hoffman, 2008; Perper & Manlove, 2009). Moreover, there are distinct disparities in teen birth rates across social groups, particularly racial and ethnic groups. For example, in 2013, Hispanic teen birth rates were 41.7 live births per 1,000 females aged 15-19 years compared to just 18.6 for non-Hispanic Whites (Martin
et al., 2015). When broken down by nativity, data from the Pew Hispanic Center (2013) shows that foreign born Hispanics are more likely to have a teen birth than native born. Yet, findings from the same Pew report suggest that third generation youth are more likely than second generation to get pregnant and/or drop out of school.

Although teen pregnancy is difficult for all young parents, it is exceptionally impactful on the lives of immigrant youth. Rumbaut (2005) suggests that teen birth creates a serious life course disruption for immigrants whose education and occupational opportunities are prime sources for social mobility. Early childbearing, particularly for females, has emerged as a turning point that can derail life course trajectories of young immigrants, disrupting the acquisition of human capital and the transition into the economic mainstream, “setting in motion processes of cumulating disadvantage” (Rumbaut, 2005, 1041). Despite the substantial presence of highly-educated immigrant professionals, data from the 2000 Census show a foreign-born population that is more likely than the U.S. born population to be living in poverty, have less than a high school education, and be residentially concentrated in central cities (Rumbaut, 2005). Given these fundamental disadvantages, it is important for scholars to understand the social factors contributing to teen birth disparities among immigrant groups so as to prevent further deterrence of social mobility.

Literature Review

It is a commonly proposed hypothesis that less acculturated Hispanic youth would have higher rates of teen childbearing because they are “more affected by value
systems from their countries of origin that support early fertility” (Dehlendorf, Marchi, Vittinghof, & Bravement, 2010). Despite a few exceptions (Rumbaut, 2005; Reynoso et al., 1993), however, this hypothesis is not well supported by empirical research. In fact, as previously discussed, greater acculturation has been associated with earlier sexual initiation, more lifetime sexual partners, and increased levels of sexual activity among Hispanic teens (Afable-Munuz & Brindis, 2006). Furthermore, the relationship between acculturation and contraception has also been inconsistent (Greenman & Xie, 2008).

When it comes to teen fertility, one study found that preferring to communicate in English (or being more acculturated) was related to higher adolescent teen pregnancy rates, although teen birth was not examined (Kaplan et al., 2002). Another study found that U.S. born Mexican girls hoped for younger parenthood than those who were born in Mexico, and perceived a higher likelihood of having a nonmarital birth (East, 1998). These findings were supported by Frank and Heuveline (1998) who found that teenage fertility rates in Mexico have been lower than the teenage fertility rates of women of Mexican origin living in the United States. Research on this relationship among adolescents is still rather limited.

It is important to note that most previous studies begin with the assumption that adolescent pregnancies are accidental, and therefore, point to the reasons why adolescents lacked the knowledge, resources, or skills necessary to avoid them (Unger et al., 2000). However, evidence suggests that some adolescents may desire to have a child or simply may not mind having a child, thus influencing their likelihood of engaging in avoidance behavior. For example, one clinic-based study found that 42% of pregnant teens did not use contraceptives because they were not really trying to avoid pregnancy.
(Stevens-Simon, Kelly, Singer, & Cox, 1996). By focusing on pregnancy norms, and more specifically embarrassment related to teen pregnancy, the current study captures the values that respondents attach to teen pregnancy, and their perceptions of whether experiencing one would violate a group-level norm. Vasalou, Joinson, and Pitt (2006) found that feeling guilt, shame, or embarrassment increased the likelihood that a subject would conform to a social norm, and studies have shown that lack of embarrassment towards pregnancy as well as ambivalent or pro-pregnancy attitudes were associated with increased likelihood of experiencing a teen pregnancy (Mollborn, 2010; Jaccard, Dodge, & Dittus, 2003; Rocca, Doherty, Padian, Hubbard, & Minnis, 2010) and lower odds of contraception (Brückner, Martin, & Bearman, 2004; Schwarz, Lohr, Gold, & Gerbert, 2007). Thus, embarrassment towards pregnancy should be further studied as variations in pregnancy norms may help to explain variation in teen birth rates among social groups and better shape teen pregnancy prevention programs that target these groups.

Hypotheses and Justifications

In this study, I examine the effects of both individual and neighborhood acculturation on teen pregnancy norms for male and female Hispanic adolescents. Specifically, this study answers the questions: 1) How do dimensions of acculturation at the individual level influence teen pregnancy embarrassment for U.S. Hispanic adolescents? 2) How do dimensions of acculturation at the neighborhood level influence teen pregnancy embarrassment for U.S. Hispanic adolescents? 3) How do these effects differ for males and females? Based on the previous discussion, I provide three
hypotheses. Drawing from theories of the immigrant advantage and the cultural buffering hypothesis, wherein less acculturation is linked to decreased sexual risk behaviors, I predict that less acculturated Hispanic adolescents will be more likely to be embarrassed by an unmarried teen pregnancy than their more acculturated peers. Second, drawing from perspectives of neighborhood normative influence and segmented assimilation theory, I predict that Hispanic adolescents living in less acculturated neighborhoods will be more likely to be embarrassed by an unmarried teen pregnancy compared to those living in more acculturated neighborhoods. Finally, given previous literature that demonstrates gendered differences in the effect of acculturation, I predict gender variations in the effect of acculturation on teen pregnancy embarrassment.

Methods

Data and Sample

Data for this study came from Waves I and II of the National Longitudinal Study of Adolescent to Adult Health (Add Health). The Add Health is a nationally-representative sample of approximately 20,000 students in grades 7-12 attending 132 schools in the 1994-95 school year, including 80 high schools and 52 (feeder) middle schools. It was initiated in 1994 in response to a mandate from Congress to fund a study of adolescent health. The school sample is a random sample of all U.S. schools, stratified by size, type, census region, level of urbanization, and racial composition. Overall, 79% of schools that were contacted agreed to participate in the study. School sizes varied from fewer than 100 students to more than 3,000 students in urban, suburban, and rural settings.
Administrators at each of the 132 schools were asked to fill out a questionnaire describing the characteristics of the school, and 90,000 students at the schools completed the initial In-School questionnaire. Then, an additional sample of 27,000 students was selected from the school rosters and from those who filled out the In-School questionnaire to participate in the in-home data collection phase. Some students were selected in order to over sample for the following special groups: disabled students, Blacks from well-educated families, Chinese, Cuban, Puerto Rican, and adolescents who were twins (Harris, Halpern, Whitsel, & Hussey, 2009). Students who participated in the in-home questionnaires completed a 90-minute in-home interview, and one parent from their home (generally their mother or other female head of household) was also asked to complete a survey about the child’s health. Over 85% of participating adolescents had a parent complete the parental interview during the first wave.

Students were followed up with in-home interviews one year later in 1996 (Wave II), then again in 2002-03 (Wave III), and in 2007-08 (Wave IV). The retention rate for each wave is: 79% (Wave I), 88.6% (Wave II), 77.4% (Wave III), and 80.3% (Wave IV). Each wave incorporates questions pertaining to the respondents’ social, psychological, and physical well-being with added contextual data on the family, school, peers, and neighborhood. The contextual data, including neighborhood ethnic and linguistic composition, allows for the operationalization of the neighborhood acculturative component in this dissertation. Plus, the Add Health’s longitudinal design allows for the use of neighborhood measures from Wave I to predict outcome measures in Wave II, minimizing the risk that the independent and dependent variables are not time ordered.
Originally, the first two waves had the goal of determining the forces that may influence adolescents’ health and risk behaviors. For the later waves, however, the goals were expanded to include how adolescent experiences and behaviors were related to outcomes and behaviors later on in adulthood. For the past two years, Add Health has been ranked as the top downloaded study from the Inter-University Consortium for Political and Social Research (ICPSR), and it is considered the largest, most comprehensive longitudinal survey of adolescents ever undertaken (Harris et al., 2009).

It is important to note that Wave II was collected in 1996, and thus, the adolescents are responding to perceived norms from 20 years ago. Yet, the richness and design of the Add Health data provide numerous benefits that justify its use despite this limitation. To my knowledge, it is the only nationally-representative, longitudinal study that provides data on teen pregnancy norms specifically. Other data sets, such as the National Survey of Family Growth, ask respondents about their birth desires and intentions, but not about how they would feel in the eyes of others if they experienced a teen pregnancy. The National Pregnancy Norms Study provides exceptional information on pregnancy norms, however only for adults. This is why the Add Health’s first two waves have been heavily utilized in studies on teen pregnancy norms, including many recent studies, such as Mollborn, Domingue, and Boardman (2014a), Mollborn, Domingue, and Boardman (2014b), Mollborn (2010) and Brückner et al. (2004).

Given the specific interests of this chapter, I limited this chapter’s analyses to Hispanic respondents who (1) completed in-home surveys in both Waves I and II; (2) provided a valid response about pregnancy embarrassment at Wave II, and (3) were
still teens at the time of Wave II, since the study is interested in their embarrassment related to a teen pregnancy. The pregnancy embarrassment question was only asked to respondents who were not married, so this also indirectly limits my sample. These restrictions reduced the sample to 2,188 respondents, with 1,932 remaining after listwise deletion of cases with missing values (972 females and 960 males). Missingness was not related to any of the measures of acculturation, at the individual or neighborhood level, parental closeness, socioeconomic status, age, gender, or relationship status. The final sample may be biased towards the respondents with slightly higher levels of academic achievement and greater college expectations (See Appendix I).

**Dependent Variable**

For the dependent variable, I used responses about pregnancy embarrassment from Wave II, when respondents were approximately 13 to 19 years old. In a series of questions about their motivations for engaging in sex during this time in their life, Add Health participants were provided with this statement: “If you got [someone] pregnant, it would be embarrassing for you.” The five response categories ranged from “Strongly Agree”=1 to “Strongly Disagree”=5. As argued by Mollborn et al. (2014a), this measure captures the respondents’ “anticipated reactions to a behavior,” or their perceived social sanctions against a well-defined norm (4). Response categories were condensed so that “Strongly Agree” and “Agree” =1 and all other responses=0. This recode allows us to focus on agreement with this statement, as it is unclear whether disagreement indicates a presence of a perceived norm promoting teen pregnancy or simply a lack of a norm against a teen pregnancy (Mollborn et al., 2014a).
Independent Variables

The key independent variables included both individual acculturation and neighborhood acculturation, taken from Wave I when respondents were approximately 12 to 18 years old. To measure individual acculturation, the respondents’ preferred language spoken in the home and immigrant generation were combined to create dummy variables for: 1) non-English speaking, foreign born adolescents, 2) non-English speaking, native born adolescents, and 3) English speaking adolescents (either foreign born or native born)\(^1\) (similar to Hawkins et al. 2014). English speaking adolescents, or those who are assumedly more acculturated, serve as the reference group. Studies have shown that immigrant language preference, often in combination with duration or generation, is generally a valid measure of level of acculturation (Kang 2006; Olmedo and Padilla 1978). Thus, in this study I consider non-English speaking, foreign born adolescents to be the least acculturated and English speaking adolescents to be the most acculturated.

Since there is no consistent definition for neighborhood acculturation or what constitutes an immigrant neighborhood (Nobari et al., 2013), I investigated a number of immigrant related census variables, and found many of them to be highly correlated. Thus, in this study, I combined three of these variables into a dichotomous measure of neighborhood acculturation, where 1= a Hispanic immigrant neighborhood. A neighborhood was classified as such if it had a relatively high proportion (top quartile) of non-English speaking, foreign born, and Hispanic residents (\(\alpha=.94\)). Each of the neighborhood characteristics were derived by Add Health in Wave I from 1990 Census.

\(^1\)Categories of English speakers were combined due to the small number of English speaking, foreign born respondents (<5%)
tract-level data. Among the neighborhoods in which my subsample resided, the top quartiles were recognized as 0.16 and higher for the proportion of non-English speakers, 0.33 and higher for the proportion of foreign born residents, and 0.54 and higher for the proportion of Hispanic residents. Quartiles are frequently used to create measures of neighborhood immigrant or ethnic concentration (Cantrell, 2014; Cubbin et al., 2005; Park, Neckerman, Quinn, Weiss, & Rundle, 2008) and according to Osypuk, Roux, Hadley, & Kandula (2009), distribution-based categories are often used when there is no a priori theory to justify a particular threshold.

Control Variables

Control variables included parent-child closeness, age, parents’ level of education (as a proxy measure for socioeconomic status), religious importance, academic achievement, college expectations, and (from Wave II) relationship status. For parent-child closeness, respondents’ ratings of closeness to their residential parent(s) were averaged, and ranged from 1=“not at all” to 5=“very much.” Studies have shown that parent/child closeness, warmth, and attachment are consistent predictors of teen pregnancy, engaging in sexual intercourse, and use of contraception (Miller, 2002). Respondents’ ages were measured in years. Parental education was determined using the maximum level of education reached by either the respondent’s mother or father. This maximum was recoded as 1=less than high school diploma, 2=high school diploma or GED, and 3=some college/trade school or higher. Respondents’ genders were coded according to Add Health guidelines. Studies have shown that religious individuals have stronger norms related to sexuality and family planning (Ellison & Goodson, 1997). Therefore, I included a reverse
re-coded ordinal variable for religious importance, where 1 indicated religion was not at all important and 4 indicated it was very important.\textsuperscript{3} Academic achievement was measured using the respondents GPA (4.0 scale), and college expectations were included as the respondents’ perceived likelihood of attending, which ranged from 1 (low) to 5 (high). Academic ability and career aspirations have both been shown to be negatively associated with teen pregnancy (Doğan-Ateş & Carrion-Basham, 2007). Relationship status was coded as 1=currently in a romantic relationship and 0=not currently in a romantic relationship. At the neighborhood level, I also controlled for Census tract poverty rate, or the proportion of families in the neighborhood living below the federal poverty level. Just as with the other neighborhood level variables, this measure was derived by Add Health in Wave I from 1990 Census tract-level data.

\textit{Statistical Analysis}

The Add Health study was designed using a multi-stage cluster sample in which the clusters were sampled with unequal probability. This complicates the statistical analysis because observations are no longer independent and identically distributed. Thus, the variance estimates are affected by the clustering, stratification, weight and design type. In order to analyze the data correctly, the Carolina Population Center recommends using survey software packages to analyze Add Health data, such as SAS, STATA, or SUDAAN (Harris et al., 2009). These software packages incorporate the characteristics of the survey design into their computational formulas, correcting for the bias it presents. If I was to ignore the survey design characteristics, my analysis would yield incorrect point estimates and variances.

\textsuperscript{4}I was further advised by Add Health that these procedures adequately account for any effects of clustering of respondents by neighborhood (Sharon Christ, personal communication, December 30, 2014; see also Cubbin et al., 2005).
Therefore, all statistical analyses for this dissertation were conducted using *survey* procedures in SAS 9.3, were weighted for national representation, and standard errors were corrected for survey design effects of multiple stages of cluster sampling as outlined by Add Health guidelines (Chen and Chantala, 2014)⁴. Univariate percentage distributions for each gender were used to describe the sample, and bivariate percentage distributions and two-tailed $\chi^2$ tests were used to show how pregnancy norms varied for each of the predictors in the study. Then, two logistic regression models were estimated for each gender. The first model regressed pregnancy embarrassment on individual level acculturation and controls, and the second added in neighborhood level acculturation and controls. I also tested the significance of gender interactions in a pooled model.

Tolerance and Variance Inflation Factor (VIF) were used to test for multicollinearity among predictor variables. All tolerance levels and VIF scores in the analysis were within an acceptable range.⁵

Results

Table 1 presents the descriptive statistics for variables used in the analysis by gender. For Hispanic females, most (59.5%) reported that they would feel embarrassed if they experienced a pregnancy at this time in their lives. Over half of the female sample was English speaking, while 22.0% were foreign born, non-English speakers, and 23.2% were native born, non-English speakers. Around 19% lived in an immigrant neighborhood. On average, females’ parents had a high school education, and the

⁵Because SAS does not include collinearity diagnostics for survey data, Tolerance and VIF were estimated using the method described at http://www.ats.ucla.edu/stat/stata/faq/svycollin.htm.
parental closeness was high (4.4 out of 5). Around 37% reported currently being in a romantic relationship.

Bivariate relationships are presented in the second column for each gender in Table 1 (“% Embarrassed”). Based on bivariate results, the percent of females who reported they would be embarrassed by a teen pregnancy decreased across the categories of individual acculturation. Among the least acculturated (foreign born, non-English speakers), 69.1% would feel embarrassed, compared to 58.7% of the moderately acculturated (native born, non-English speakers) and 56.0% of the most acculturated (English speakers). Females who lived in less acculturated, immigrant neighborhoods also had a higher rate (69.8%) of embarrassment than those living in more acculturated, non-immigrant neighborhoods (57.0%). Chi-squared results indicated significant relationships between pregnancy embarrassment and individual acculturation, living in an immigrant neighborhood, GPA, college expectations, relationship status, and neighborhood poverty rate for females.

For Hispanic males, the rate of embarrassment about experiencing a teen pregnancy was much lower overall compared to females (45.4%). This is expected since pregnancy results in quite different physical consequences and (in most cases) lifestyle changes for females compared to males. In addition, as discussed, societal expectations about female and male sexuality differ quite substantially, particularly for the Hispanic population. The Hispanic males in the sample were overall slightly more acculturated than the females, with 63.2% English speaking, 17.5% foreign born, non-English speaking, and 19.3% native born, non-English speaking. Around 16% lived in an immigrant neighborhood. On average, males’ parents had a high school education,
and parental closeness was higher than for females (4.6 out of 5). Around 37% were currently in a romantic relationship. Opposite of the pattern for females, embarrassment increased rather than decreased across categories of individual acculturation in the bivariate analysis, and those who lived in an immigrant neighborhood had a lower rate of embarrassment than those who lived elsewhere, although none of these bivariate relationships were significant for males.

Figures 1 and 2 present the bivariate relationships in bar graph form to demonstrate visually how the rate of embarrassment differs across acculturation categories. Figure 1 demonstrates that embarrassment towards teen pregnancy decreases for females as they acculturate but increases for males as they acculturate. We can also see from this figure how the gender differences in embarrassment seem to converge as both genders acculturate. Females start out with relatively high embarrassment averages (69.1%) and males start out with relatively low averages (41.4%) when they are foreign born and non-English speaking. This is a difference of 27.7 percentage points. Yet, across each acculturation category, the averages become more similar, resulting in a difference of only 8.8 percentage points when the adolescents are English speaking. This same gender convergence is demonstrated when comparing those who live in less and more acculturated neighborhoods (Figure 2). In less acculturated neighborhoods, females have relatively high rates of embarrassment (69.8) and males have relatively low rates (40.5). This is a difference of 29.3 percentage points. Yet, in more acculturated neighborhoods, these rates become more similar.
Table 2 presents coefficients (B) and odds ratios (OR) from the logistic regression models for Hispanic females and males. In Model 1, controlling for other individual level variables, individual acculturation was significant for Hispanic female teens, but not for males. Foreign born, non-English speaking females, or the least acculturated, were 99% more likely to be embarrassed by an unmarried teen pregnancy than English speakers (\( p \leq .01 \)). Native born, non-English speakers were also more likely to be embarrassed than English speakers, but this relationship was not significant. Also significant for females in Model 1 were GPA, college expectations, and relationship status. For every point increase in GPA, the odds of being embarrassed by an unmarried teen pregnancy for Hispanic females increased by 28% (\( p \leq .05 \)). Also, for every point increase in their reported likelihood of attending college, the odds of being embarrassed increased by 32% (\( p \leq .01 \)). Finally, Hispanic females who were currently in a romantic relationship were 41% less likely to be embarrassed compared to those not in a romantic relationship.

For males, Model 1 shows that less acculturated teens had lower rates of embarrassment compared to the more acculturated, opposite of the effect for females, although this relationship was not significant. Three control variables were significant, including age, GPA, and college expectations. For every one year increase in age, the odds of being embarrassed by an unmarried teen pregnancy for males decreased by 12% (\( p \leq .05 \)). For every point increase in GPA, the odds increased by 70% (\( p \leq .001 \)), and for every increase in reported likelihood of college attendance, the odds increased by 29% (\( p \leq .01 \)).
In Model 2, neighborhood variables were added, including the neighborhood acculturation variable and neighborhood poverty rate. The AIC indicates that Model 2 is a better fit of the data than Model 1 for both males and females. Hispanic females who lived in a Hispanic immigrant neighborhood were 59% more likely to be embarrassed by an unmarried teen pregnancy than those who lived elsewhere ($p \leq .05$). Neighborhood poverty rate, however, was not significant. Thus, for females, a large presence of foreign born, non-English speaking Hispanics, or less acculturated residents, was influential over and above a large presence of poor families. The effect of individual acculturation remained significant ($p \leq .01$) in Model 2, and the significance levels and effect sizes of the control variables did not change much. For Hispanic males, however, neither neighborhood level variable had a significant effect, and the significance and effect sizes of the control variables remained largely the same. In Table 2, significance tests from the pooled analysis with gender interactions are indicated by lower case alphabetic superscripts (a,b,c…). These results indicate that gender differences in the effects of individual and neighborhood acculturation were statistically significant ($p \leq .05$).

Discussion

This study finds support for an “immigrant advantage” for teen pregnancy norms for Hispanic females, but not for Hispanic males. Using nationally representative data, I found that less acculturated Hispanic females were more likely to be embarrassed by an unmarried teen pregnancy than those who were more acculturated. Therefore, my first hypothesis was partially supported. This finding is interesting given stereotypes about traditional Hispanic culture’s high regard for motherhood, and specifically, young
motherhood. Yet, my findings demonstrate that perhaps traditional ideas related to female purity and the value placed on family respect and reputation among the less acculturated create strong norms against *unmarried* teen pregnancies for females, but less so for males. New immigrant families often place stricter rules and provide more monitoring for female adolescents than for males, having higher expectations for their daughters to embody these traditional ideas (Suarez-Orozco and Qin, 2006). Yet, studies have shown that, as they acculturate, Hispanic teens often lose their cultural protections, experience conflict with the traditional culture of their parents, and become more open to risky sex behaviors, such as having sex earlier and having multiple sexual partners (Marin & Floras, 1994; Harris, 1999). This study has demonstrated a similar increased risk among more acculturated Hispanic females when it comes to teen pregnancy norms.

I also found an interesting pattern in the convergence of each gender’s norms related to teen pregnancy as they acculturated. Females and males had very dissimilar attitudes toward teen pregnancy when they were less acculturated, but these attitudes became much more similar among the more acculturated respondents. This could be further evidence for the dilution of traditional gender roles linked to the process of acculturation.

The finding that less acculturated females have greater norms against teen pregnancy is also interesting given studies showing that foreign born Hispanic females are more likely to experience a teen birth than native born (Pew Hispanic Center, 2013). Yet, it is important to point out that my data reveal norms related to *unmarried* teen pregnancies, while the Pew data do not make this distinction. In fact, foreign born
women consistently have a higher percentage of their first births while married than native born women (Pew Hispanic, 2013), and they also tend to marry at younger ages (Copen, Daniels, Vespa, & Mosher, 2012). Thus, while less acculturated women may be experiencing more teen births in general, they are likely doing so within the context of marriage, while respondents in this study are reporting norms about unmarried teen pregnancies.

In addition, I found that living in a less acculturated neighborhood seemed to instill norms against teen pregnancy, although again only for females. Therefore, my second hypothesis was also partially supported. These findings are consistent with the emphasis of segmented assimilation theory (Portes & Zhou, 1993) and provide evidence for what Kimbro (2009) calls “acculturation in context,” or the recognition that the acculturative process should be considered along with contextual measures. These findings also parallel with those from Denner et al. (2001), who found lower teen birth rates in foreign born, Latino communities. According to their qualitative findings, neighborhoods with low teen birth rates had residents that mainly identified with the Latino culture, and more residents knew one another, partly due to the immigration patterns and to the multiple generations of residents living there. When residents have strong ties and share cultural values, they tend to share similar ideas about acceptable sexual behavior. My findings suggest that these shared cultural values are demonstrated in the norms of young, Hispanic females. Just as with individual acculturation, the less acculturated neighborhood may reflect high levels of social control and monitoring of the sexual behaviors of females, thus influencing young, Hispanic female norms, but less so for males. Thus, as demonstrated by the varying
effects of acculturation measures across genders, my third hypothesis was supported. Furthermore, despite previous studies that show a link between neighborhood disadvantage and sexual risk behaviors (Cubbin et al., 2005; Brewster, 1994), poverty rate of the neighborhood was not significant in this study for predicting teen pregnancy norms for Hispanic youth. This is possibly explained by the significant protective effect of the immigrant neighborhood.

Conclusion

To date, this is the first study to incorporate a longitudinal and contextual perspective of the relationship between acculturation and teen pregnancy norms among U.S. Hispanics. Findings suggest that the context of acculturation matters for its effect on teen pregnancy norms and that both individual and neighborhood acculturation effects vary by gender. Females, but not males, seem to experience an "immigrant advantage" in terms of perceived social sanctions against an unmarried pregnancy at a young age.
DIMENSIONS OF ACCULTURATION, GENDER, AND CONDOM USE

Moving away from attitudes towards teen pregnancy, the next empirical study focuses on the relationship between dimensions of acculturation and sexual behaviors as teens transition into adulthood. Sexual risk behaviors can have very negative consequences for both adolescents and young adults. Not using a condom, in particular, has been linked to a myriad of health and social problems, including the transmission of HIV and other sexually transmitted infections (STIs) (CDC, 2013) as well as unintended pregnancy. STIs can lead to other serious health complications, including infertility, chronic pain, low birth weight babies, cervical cancer, and even death (Eng & Butler, 1997). Furthermore, adolescents who experience an unintended pregnancy are less likely to finish high school and thus more likely to live in poverty (Hoffman & Maynard, 2008). Although sexual risk behaviors in general have declined among U.S. youth in recent years, Hispanics remain an exception. They are less likely than Whites and Blacks to use a condom (CDC, 2012; Sabogal et al., 1995), and consequently, Hispanic youth have higher rates of STIs, especially syphilis, gonorrhea, chlamydia, and HIV/AIDS (CDC, 2014, 2015).

In a 2003 study of nationally-representative data, researchers found that around 36% of Hispanic teenagers reported that they never used contraception during sexual relationships. (Manlove, Ryan, & Franzetta, 2003). This is in comparison to 23% of Black teens and 17% of White teens. Also, among those who did use contraceptives, only 54% of Hispanic teens reported consistent use compared to 66% of both Black and White teens. However, when examining condom use specifically, a study from the CDC’s Youth Risk Behavior Surveillance showed Hispanic male teens reported slightly
greater condom use (65.3%) during last sexual encounter compared to the teen average (62.8%). For Hispanic female teens, however, the rate of reported condom use was much lower (49.8%). These conflicting findings, disparities, and gender gaps call for a further review of social factors influencing condom use among U.S. Hispanic youth in order to understand and improve their increased risk for unintended pregnancy and STIs.

Literature Review

When attempting to explain these disparities in Hispanic sexual risk behaviors, researchers have again emphasized the role of cultural factors. Given that Hispanics are largely Catholic, a sect with stringent guidelines about sexual practice and fertility, it is a common assumption that their religious denomination is highly influential on their condom and other contraceptive behavior (Villarruel & Rodriguez, 2006). Yet, many studies have demonstrated no substantial link between Catholic affiliation and low rates of condom use while some have even shown higher rates of condom use and use of other contraceptives among Catholics compared to Protestants (Goldscheider & Mosher, 1991; Jones & Drewke, 2011). These studies suggest that typical stereotypes that Hispanic sexual behaviors are guided solely by Catholic dogma need to be further scrutinized, and other cultural influences could play a more substantial role.

Other researchers have turned to the role of acculturation when explaining the sexual risk disparities among U.S. Hispanics. While studies have largely revealed a Hispanic “immigrant advantage” regarding sexual risk behaviors in general, where less acculturated teens experience less risk than more acculturated teens (e.g., Adam et al.,
2005; Aneshensel, Becerra, Fielder, & Schuler, 1990; Kaplan et al., 2002; Lee & Hahm, 2010), the pattern has been less clear for condom use (e.g., Ford & Norris, 1993; Marin, Gomez, & Hearst, 1993; Marin, Tschann, Gomez, & Kegeles, 1993). Furthermore, most studies have focused on females only (e.g., Aneshensel et al., 1990; Kaplan et al., 2002; Lee & Hahm, 2010; Romo, Berenson, & Segars, 2004), and a few on males only (e.g., Marin, Gomez, & Tschann, 1993). To my knowledge, none have examined this relationship to compare both genders.

Consistent with the “immigrant advantage” and the cultural or social buffering hypothesis, among Hispanic females, less acculturation is associated with a later onset of sexual initiation (Adam et al., 2005; Aneshensel et al., 1990; Kaplan et al., 2002), as well as fewer sexual partners (Kaplan et al., 2002; Lee & Hahm, 2010; Marin, Gomez, & Hearst, 1993; Marin, Tschann, et al., 1993), fewer pregnancies (Kaplan et al., 2002), increased likelihood of using a condom (Romo, Berenson, & Segars, 2004) and a lower likelihood of having vaginal intercourse in the last year (Ford & Norris, 1993) or a sexually transmitted infection (STI) diagnosis (Lee & Hahm, 2010). On the other hand, less acculturation has also been associated with a lower likelihood of having or using a condom (Sabogal et al, 1995; Ford & Norris, 1993; Marin & Marin, 1992; Marin, Tschann, et al., 1993), higher rates of unintended pregnancies (Brindis et al., 1995, p. 102), and misconceptions about the transmission of HIV/AIDS (Marin & Marin, 1990). As for Hispanic males, contrary to the cultural or social buffering hypothesis, less acculturation is associated with multiple sexual partners (Marin, Gomez, & Hearst, 1993). However, consistent with the hypothesis, for those with multiple sexual partners,
less acculturation is associated with a greater likelihood of carrying condoms and having a positive attitude towards condoms (Marin, Gomez, & Tschann, 1993).

As previously discussed, researchers have tended to attribute gender differences in the effects of acculturation on Hispanic risk behaviors to differences in prevailing gender norms between traditional Hispanic culture and mainstream America (e.g., Marin, Tschann, et al., 1993; Zemore, 2005). As Lee & Hahm (2010) suggest, aspects of traditional Hispanic culture, such as gender inequality and power imbalances within romantic relationships, may influence varying attitudes and behaviors related to sex and contraception among males and females. For example, aspects of *machismo* may encourage male decision-making power about sex and contraception. Female gender roles, including prevailing *marianismo* beliefs, also stress the importance of sexual purity among females and dictate behavior, such as not talking about controversial subjects like birth control (Castillo et al., 2010). Ironically, the traditional emphasis on female sexual purity may also provide a justification for males to use protection when engaging with women with greater sexual experience who they consider “dirty.”

To date, no study has examined the effects of neighborhood acculturation on residents’ condom use. Brewster et al. (1993) and Ku et al. (1993) investigated the effects of neighborhood acculturation on “contraceptive use,” and found that its effects, like those of its individual-level counterparts, appeared to differ by gender. On the one hand, the percentage of foreign born residents in White females’ neighborhoods was not associated with experiencing a contracepted versus a non-contracepted first intercourse (Brewster et al., 1993). On the other hand, the percentage of Hispanic
residents in adolescent males’ neighborhoods was negatively associated with their use of contraception at last intercourse (Ku et al., 1993).

Hypotheses and Justifications

The current study aims to explain how the multiple dimensions of acculturation during adolescence, including neighborhood characteristics, influence condom use as Hispanics become young adults. Drawing again from elements of the “immigrant advantage” and segmented assimilation theory (Portes & Zhou, 1993), I utilize data from Waves I and III of the National Longitudinal Study of Adolescent Health (Add Health), to examine condom use among Hispanic young adults (ages 19-26). Specifically, I answer the following questions: 1) How do dimensions of acculturation at the individual level during adolescence influence condom use for U.S. Hispanic young adults? 2) How do dimensions of acculturation at the neighborhood level during adolescence influence condom use for U.S. Hispanic young adults? 3) How do these effects differ for males and females?

Based on the preceding discussions in Chapter 2, I offer three hypotheses. First, guided by the cultural or social buffering hypothesis for the immigrant advantage, wherein less acculturation has been shown to be protective in many ways related to sexual risk behaviors, I predict that less acculturated Hispanics who are sexually active will be more likely to use a condom as a young adult than their more acculturated peers. Second, based on perspectives of neighborhood normative influence and segmented assimilation theory, I predict that sexually active Hispanics living in less acculturated neighborhoods as adolescents will be more likely to use a condom as a young adult.
than those living in more acculturated neighborhoods. Finally, given previous literature
that suggests that Hispanic males and females are influenced differently by
acculturation, I predict gender variations in the effect of acculturation on condom use.

Methods

Data and Sample

Data for this study were taken from Waves I and III of the National Longitudinal
Survey of Adolescent to Adult Health (Add Health). The Add Health is a nationally
representative sample of approximately 20,000 adolescents in grades 7-12 attending
132 schools in the 1994-1995 school year. Students were followed into early adulthood
with in-home interviews in 1996 (Wave II), 2002-03 (Wave III), and 2007-08 (Wave IV).
A more detailed description of the Add Health data and survey design is provided in
Chapter 3’s Methods section. The longitudinal design of the Add Health allows for
analyses that link individual and neighborhood characteristics early on to sexual health
behaviors later in life, minimizing neighborhood selection bias as adolescents do not
tend to choose their own neighborhood at an early age. This design also minimizes the
risk that the independent and dependent variables are not time ordered.

Given the specific interests of this chapter, I limited the analysis to Hispanic Add
Health respondents who: (1) completed in-home surveys in both Waves I and III; (2)
were not married at Wave III; and (3) provided a valid response to the condom use
question in Wave III. The third criterion indirectly limited the sample to respondents who
had engaged in sex during the past 12 months. These restrictions reduced the sample
to 1,348 respondents, with 1,184 remaining after listwise deletion of cases with missing
Categories were collapsed because the parallel lines assumption for ordinal logistic regression was not met, and analysis revealed that their deletion did not significantly bias the sample on any of the individual or neighborhood acculturation variables. (See Appendix II).

**Dependent Variable**

For the dependent variable, I used responses about condom use from Wave III, when respondents were young adults (aged 19-26). In a series of questions asking about their experiences with heterosexual, vaginal intercourse in the past 12 months, Add Health participants were asked the question “On how many of these occasions did (you/your partner) use a condom?” The five response categories were “none,” “some,” “half,” “most,” and “all.” Responses were dummy coded so that "none" = 0 and all other responses = 1. Therefore, the dependent variable represents using a condom in the past year.\(^1\)

**Independent Variables**

My key independent variables included both individual acculturation and neighborhood acculturation, taken from Wave I when respondents were adolescents. Individual acculturation was measured using language spoken in the home and immigrant generation. Language spoken in the home was coded 1 for non-English speakers, representing a lower level of acculturation, and 0 for English speakers. Immigrant generation was also dummy-coded to indicate whether the respondent was first generation (foreign-born), second generation (native-born to foreign-born parents), or third (and higher) generation (i.e., native-born with native-born parents) (reference

\(^1\)Categories were collapsed because the parallel lines assumption for ordinal logistic regression was not met, and multinomial logistic regression of the categories revealed no significant relationship between condom use and acculturation. Acculturation was significant only in logistic regression analysis of condom use at all in the past year. Thus, acculturation does not appear to affect condom use consistency, just condom use in general.
In the previous study, two individual acculturation variables (nativity and language preference) were combined, while in this study, they were left separate to allow for more variation within immigrant generation. While nativity on its own can be an important indicator of acculturation, it is important to recognize the crucial differences that exist between the second and third generation adolescents, who by the former definition are both “native born.”

Neighborhood acculturation was measured using a binary variable, where living in a non-English speaking neighborhood as an adolescent was coded as 1. A neighborhood was classified as non-English speaking if it fell within the Hispanic-specific top quartile of neighborhood proportion non-English speakers (similar to cutoffs used by Osypuk et al., 2009; Park et al., 2008). This variable was derived by Add Health from 1990 Census tract-level data. Among the neighborhoods in which this subsample resided, the proportions of non-English speakers ranged from 0.00 to 0.67, with a top quartile of 0.16 and higher. The neighborhood proportion foreign born was also included in sensitivity analysis, but was later removed due to issues of multicollinearity. As argued by Finch, Boardman, Kolody, & Vega (2000), a community level measure that captures the use of non-English language “subsumes other important components of contextual census variables such as nativity and length of time in country” (p. 429).

Control Variables

Prior research on sexual risk taking among Hispanic youth has identified a number of relevant family and individual predictors, which were included from Wave I and III as controls. At the individual level, the Wave I variables included gender, age, parents’ level of education (as a proxy measure for socioeconomic status), religious
importance, academic achievement, prior sexual experience, and two parent-child relationship indicators: parent-child closeness and conflict. Number of past sexual partners was also included as a control from Wave III. Gender was recoded as a binary variable, where 1 = female\(^2\), and age was measured in years. Parental education was determined using the maximum level of education reached by the respondent’s parent(s). This maximum was recoded as 1 = less than high school diploma, 2 = high school diploma or GED, and 3 = some college/trade school or higher.

A reverse recoded ordinal variable was used for religious importance where 1 indicated religion was not important at all and 4 indicated it was very important. Religion is widely seen as protective for adolescent problem behaviors, including sexual risk taking (Sinha, Cnaan, & Gelles, 2007)\(^3\). Academic achievement was measured using the respondent’s GPA (4.0 scale). Academic ability and school attachment have both been shown to be negatively associated with sexual risk (Halpern, Joyner, Udry, & Suchindran, 2000). For parent-child closeness, respondents’ ratings of closeness to their residential parent(s) (ranging from 1 = “not at all” to 5 = “very much”) were averaged. For conflict, a binary variable was coded 1 for respondents who indicated having a serious argument with their residential parent(s) in the last month. Studies have shown that parent/child closeness, warmth, and attachment are the most consistent predictors of teen pregnancy. Teens who are close to their parents are less likely to engage in sex and more likely to use protection (Miller, 1998).

\(^2\)There are 20 cases in which Wave III gender did not match the Wave I gender variable. Thus, following guidance from Add Health documentation, I used the Wave III gender variable (BIO_SEX3) in all analyses in this chapter.

\(^3\)As in Chapter 3, a variable for religious denomination (i.e. Catholic vs. non-Catholic) was explored but not included, as it did not contribute to significantly higher pseudo R\(^2\)’s and studies have shown that there is a larger difference in sexual decision-making between religious and non-religious teens than between teens from different religious denominations (Regenerus, 2007).
To incorporate the longitudinal capabilities of Add Health, sexual experience variables were also included to control for whether respondents had participated in sexual intercourse prior to Wave I and whether they had used a condom prior to Wave I. Binary variables were created for “never had sex,” “had sex and used a condom,” and “had sex but never used a condom.” Furthermore, a continuous variable measuring the respondent’s number of previous sexual partners at Wave III was also included.

Two neighborhood level controls were also included, and both were derived by Add Health from 1990 Census tract-level data. A highly Hispanic neighborhood was operationalized using the top quartile of Census tract proportions of Hispanic residents. The neighborhood proportion of Hispanics ranged from 0.00 to 0.96, with a top quartile of 0.53 and above. A high poverty neighborhood was operationalized using the top quartile of Census tract proportions of families living in poverty. The variable ranged from 0.00 to 0.56, with a top quartile of 0.27 and above. Each was dummy coded so that living in a neighborhood within the top quartile = 1 and otherwise = 0.

Statistical Analysis

As in Chapter 3, all statistical analyses were conducted using the survey procedures in SAS 9.3 to correct for bias in Add Health’s clustering survey design, and all estimates were weighted for national representation, as outlined by Add Health guidelines (Chen & Chantala, 2014). Univariate percentage distributions were presented for males and females separately to describe the sample, and bivariate percentage distributions for each gender were used to show how condom use varied by each of the predictors in the study. Two logistic regression models were estimated for each gender. The first model regressed condom use on individual level acculturation

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4 I was further advised by Add Health that these procedures adequately account for any effects of clustering of respondents by neighborhood (Sharon Christ, personal communication, December 30, 2014; see also Cubbin et al, 2005).
and controls, and the second added neighborhood level acculturation and controls. I also tested the significance of gender interactions in a pooled model.

Once again, tolerance and Variance Inflation Factor (VIF) were used to test for multicollinearity among predictor variables. All tolerance levels and VIF scores in the analysis were within an acceptable range.\(^5\)

Results

Table 3 presents the descriptive statistics for variables used in the analysis. For Hispanic females, most (71.5%) reported using a condom during sexual intercourse during the past 12 months. Overall, the female sample was fairly acculturated, with only around one third speaking a language other than English at home and less than one fourth being born outside the U.S. Similarly, only 20.1% lived in a non-English speaking neighborhood. On average, females’ parents had a high school education, and parental closeness was high (4.3 out of 5), despite many reporting recent conflict with their parents (48.5%). As for previous sexual experience, 65.7% of females reported never having sex at Wave I, while 29.6% reported having sex and using a condom at Wave I.

For males, the percentage reporting condom use during the past 12 months was higher than for females (84.4%). Acculturation was similar among both males and females, with around 21.1% of males born outside the U.S. and around 33% speaking a language other than English in the home. Also similar to females, around 23.1% of males lived in a non-English speaking neighborhood. Male respondents' parents had, on average, a high school education, and parental closeness was higher than among females (4.7 out of 5) while parental conflict was lower (36.3%). As for previous sexual

\(^5\)Because SAS does not include collinearity diagnostics for survey procedures, Tolerance and VIF were estimated using the method described at [http://www.ats.ucla.edu/stat/stata/faq/svycollin.htm](http://www.ats.ucla.edu/stat/stata/faq/svycollin.htm).
experience, around 60% of males had never had sex at Wave I, while 37.2% had had sex and used a condom.

Bivariate relationships are presented in the second column of Table 3. Based on the bivariate results, the percent of females who reported condom use seemed to increase slightly across categories of individual acculturation. Among the first generation females (less acculturated), 70.6% reported using condoms, while among third generation females (more acculturated) 72.9% reported using condoms. Furthermore, among non-English speakers (less acculturated), 69.3% reported using condoms, while among English speakers (more acculturated) 73.9% reported using condoms. Opposite of the effect for females, condom use seemed to decrease across immigrant generations for males. Among first generation males (less acculturated), 88.6% reported using condoms, while among third generation males (more acculturated), 78.1% reported using condoms. There was very little difference, however, for males between non-English and English speakers (84.6% vs. 84.2%). Interestingly, both genders were more likely to use a condom if they lived in a less acculturated, non-English speaking neighborhood. Chi-squared results indicated, however, that condom use was not significantly related to any acculturation variables for females, but a significant bivariate relationship between acculturation and immigrant generation existed for males.

Figures 3 and 4 present these bivariate relationships in the form of a bar graph to better show how condom use changes across acculturation categories. Figure 3 demonstrates that condom use decreases for males across immigrant generation but remains largely the same for females. This figure also demonstrates how the gender
differences in condom use seem to converge as males acculturate. Females start out with relatively lower reported condom use (70.6%) and males start out with relatively higher condom use (88.6%) when they are first generation. This is a difference of 18.0 percentage points. Yet, across each generation, as male condom use decreases, the averages become more similar, resulting in a difference of only 5.2 percentage points when the adolescents are third generation. Interestingly, this same gender convergence is not demonstrated when comparing those who live in less and more acculturated neighborhoods (Figure 4).

Table 2 presents coefficients (B) and odds ratios (OR) from gender-specific logistic regressions of condom use in the past year. In Model 1, controlling for other individual level variables, none of the individual acculturation measures were significant for Hispanic females. Yet, being both first and second generation had positive and significant effects for males ($p \leq .001$ and $p \leq .01$ respectively), meaning first and second generation males were more likely to use condoms than their third generation counterparts (OR=6.98 and OR=3.02 respectively). Results from the pooled analysis with gender interactions indicate that the gender difference in generational effects was statistically significant ($p \leq .05$). Language use was not a significant predictor for condom use for either gender.

For females, two controls were positive and significant, including parent’s education ($p \leq .05$) and GPA ($p \leq .01$). For each level increase in parent’s education, females’ odds of using condoms increased by about 51%, and for each point increase in GPA, their odds increased by 72%. For males, none of the individual level control variables were significant.
In Model 2, the neighborhood level variables were added. Their inclusion did not change the effects of acculturation at the individual level for either gender. Immigrant generation still had no effect for females and a negative effect for males, with the first generation being the most likely to use a condom ($p \leq .001$). The effects of acculturation at the neighborhood level also differed by gender, although the significance was moderate ($p = .09$). For females, living in a non-English speaking neighborhood was positive and significant ($p \leq .001$), meaning Hispanic females who lived in less acculturated neighborhoods as an adolescent were more likely to use condoms as a young adult than females who lived elsewhere (OR = 6.35). However, for males, living in a non-English speaking neighborhood had no effect.

Among the controls in Model 2, there was a significant, negative effect of living in a highly Hispanic neighborhood for females (OR = 0.18, $p \leq .01$), and this effect differed significantly between genders ($p \leq .05$). Thus, while living in a less acculturated, non-English speaking neighborhood as a girl increased the likelihood of condom use as a young woman, living in a highly Hispanic neighborhood as a girl decreased the likelihood. On the other hand, for males, living in a highly Hispanic neighborhood as a boy had no effect on the likelihood of condom use as a young man. Neighborhood poverty rate had no significant effect for males or females.

**Discussion**

The results provide some support for the “immigrant advantage” hypothesis for condom use among young Hispanics, although this advantage is demonstrated differently among genders. Using nationally representative data, I found that, overall,
first and second generation Hispanic youth were more likely to use condoms than their third generation counterparts, but when broken down by gender, the relationship was only significant for males. Thus, my first hypothesis was partially supported. These findings are interesting given prior literature that suggests that second and third generation Hispanics are fairly similar in their demographics, personal characteristics, and experiences, at least in comparison to first and second and first and third generation (Pew Hispanic Center, 2004). Yet, this study finds that in relation to condom use, first and second generation are more similar than second and third generation. Given their increased exposure to American mainstream sexual ideals, third generation Hispanic males may be more open to ideas about sex and engagement in risky sex behaviors, such as having sex at an early age and having multiple sex partners (Marin & Flores, 1994; Sabogal, Faigeles, & Catania, 1993). In addition, engagement in more sexual activities may be linked to more open attitudes towards alternatives to condoms, including birth control pills or IUDs, which on their own, do not prevent STI transmission. Or, as Unger & Molina (2000, 245) suggest, “perhaps acculturation results in a decrease in culturally sanctioned constraints against health-risk behaviors such as premarital sexual intercourse, without a corresponding increase in self-efficacy to protect oneself from the potentially negative consequences of these behaviors.”

Hispanic ethnicity is complex, and comprises many cultures and characteristics. However, given the differences observed between males and females in this study, I can speculate that traditional Hispanic values and beliefs surrounding contraception may promote the use of condoms among males, and perhaps less so among females. These findings parallel with those from Marin, Gomez, and Tschann (1993) that found
that less acculturated men were more likely to carry condoms and to report a positive attitude toward condom use than more acculturated men. Furthermore, it is possible that adherence to traditional gender norms, including values of female sexual purity and the dirty/clean dichotomy, may encourage less acculturated males to wear condoms during premarital, casual sex. However, Hispanic males may lose these cultural protections as they acculturate and become more open to risky sex and they/their partners become more open to alternative forms of birth control.

The study also found that condom use differed by neighborhood, but only for females. Females who lived in less acculturated, non-English speaking neighborhoods as girls were more likely to use condoms as young women. Thus, my second hypothesis was partially supported. This result is consistent with Denner et al.’s (2001) finding of lower teen birth rates in foreign-born, Hispanic communities and the emphasis of segmented assimilation theory on the role of such communities (Portes & Zhou, 1993), and provides evidence for what Kimbro (2009) calls “acculturation in context.” Communities with strong social ties, particularly immigrant enclaves, have the ability to instill shared cultural values and norms in adolescents. Females may be more sensitive than males to the protective influence of the enclave, which helps them to maintain traditional attitudes and behaviors, such as honoring their parents and avoiding an unintended pregnancy or an STI. Neither highly Hispanic nor poor neighborhoods appeared to offer the same protections for females as the non-English speaking neighborhood. Thus, it seems to be the acculturation of the neighborhood, rather than its ethnicity or level of advantage, that is protective. As demonstrated by the varying effects of acculturation measures across genders, my third hypothesis was supported.
Conclusion

Although others have documented the importance of neighborhood in understanding health risk behaviors among youth using nationally representative data (e.g., Cubbin et al., 2005), to my knowledge, this is the first study to apply a contextual perspective to a longitudinal study of acculturation and condom use among U.S. Hispanics. Findings suggest that the context of acculturation matters, and, in addition, that the effect of acculturation on adolescent and young adult sexual risk behaviors differs by gender. Males may be influenced more by individual level acculturation and females may be influenced more by neighborhood level acculturation. Thus, policies and programs promoting condom use among U.S. Hispanics may be more effective if context and gender differences are taken into account.
CHAPTER 5  
OVERALL DISCUSSION AND CONCLUSIONS 

In Chapter 1, I provided an introduction to the problems addressed and the research questions explored in this dissertation, focusing on the dramatic growth of the Hispanic population in recent years and the consequences of sexual risk behaviors for these adolescents. This chapter also discussed the contribution of this dissertation to the larger field of medical sociology and public health studies related to immigrant adolescent risk behaviors. In Chapter 2, I gave a general overview of the theoretical background and prominent literature that guided the empirical studies of this dissertation, including discussions of the immigrant health advantage, the importance of gender norms, segmented assimilation theory, and perspectives on neighborhood normative influence in explaining the relationship between acculturation and Hispanic sexual norms and risk behaviors. In Chapters 3 and 4, I reported methods and findings from two original empirical studies. Both studies were concerned with U.S. Hispanic youth and both explored the relationship between dimensions of acculturation and sexual health. In this concluding chapter, I will briefly summarize the findings of these studies, discuss implications for policy and practice, and offer recommendations for how future research might build upon these findings and improve on its limitations. 

Summary of Findings 

The first study makes valuable contributions to the literature on disparities in Hispanic teen pregnancy rates. First, by focusing on teen pregnancy norms rather than the occurrence of teen pregnancy, this study helps to explain positive or negative
attitudes toward pregnancy that may occur even before these adolescents engage in sex, influencing their contraceptive behaviors. I extend the work of East (1998) and Frank and Heuveline (2005) by demonstrating that, despite popular assumptions about the traditional Hispanic emphasis on early motherhood, less acculturated Hispanic females tend to have more negative attitudes towards experiencing an unmarried teen pregnancy than those who are more acculturated. Thus, I find support for an “immigrant advantage” for Hispanic teen pregnancy norms. Given these findings, I argue that perhaps Hispanic females socialized in more traditional environments hold more traditional ideas about having pregnancies that are age-appropriate and within the context of marriage and perceive more negative sanctions towards experiencing a less traditional situation. Furthermore, by incorporating a multidimensional measure of acculturation that acknowledges the importance of social context, I demonstrate how living in a less acculturated, Hispanic neighborhood can reinforce traditional values and possibly negative sanctions against unmarried teen pregnancy.

The second study shifts away from the topic of adolescent reproductive norms and examines a specific sexual health behavior: condom use. This study extends the already robust literature on immigrant adolescent sexual risk behaviors, and aligns with the few studies that have found a greater likelihood of condom use among the less acculturated, such as Marin, Gomez, & Tschann (1993). I again find evidence for an “immigrant advantage” although, again, this advantage functions differently according to gender. Males demonstrated a significantly greater likelihood of condom use when they were less acculturated (first generation) than when they were more acculturated (third generation). Females, on the other hand, who lived in less acculturated neighborhoods
reported a greater likelihood of condom use than those living in more acculturated neighborhoods. Both of these findings demonstrate a protective effect of lower acculturation as it contributes to greater condom use. I reason that greater acculturation leads youth to become more open to risky sexual behaviors, such as unprotected sex, as well as make them and/or their partners more open to alternative forms of birth control, such as the pill.

Together, these studies contribute to the greater discussion of acculturation, gender, and adolescent sexual risk. Overall, there is strong evidence that, despite popular assumptions about Hispanic values encouraging young motherhood and discouraging birth control, less acculturated Hispanics seem to be protected by their traditional cultures in the cases of teen pregnancy norms and condom use. Although adherence to traditional gender norms of *machismo* and *marianismo* are not directly measured in this study, I argue that since gender norms tend to become less traditional as an individual acculturates (Gil & Vega, 1996), the dilution of these traditional values can help explain my findings. More acculturated females and those living in acculturated neighborhoods are perhaps governed less by strict parental and neighbor monitoring, values of sexual purity, and pressure to respect parents by upholding their reputation than those who are less acculturated and living in immigrant neighborhoods, which ultimately influences their lower embarrassment toward a teen pregnancy. Instead of immigrant neighborhoods, the more acculturated Hispanic females often assimilate into poor, inner-city neighborhoods of their native minority peers, where low education quality, few job opportunities, and few worthy role models make early motherhood seem like an attractive means towards personal accomplishment and emotional fulfillment.
(Edin & Kefalas, 2011). This may explain the lower rate pregnancy embarrassment in more acculturated neighborhoods. Also, despite stereotypes, greater adherence to *machismo* may actually encourage less acculturated, unmarried, young males to use condoms. Given less acculturated males valuation of female sexual purity, they may perceive females who are engaging in sex outside of marriage as “dirty,” while also considering contraceptive use as the males’ decision and responsibility. Ironically, *machismo*’s view of sex outside of the main relationship as men’s entitlement along with this categorization of women as “dirty” or “clean” may provide strong incentive to use condoms. Yet, as they acculturate, males may lose their *machismo* cultural values and become more open to females having sexual knowledge and participating in sexual decision making. This may lead to them relying on female-initiated contraceptive methods, such as the birth control pill or IUDs. While these alternatives protect against pregnancy, they do not, on their own, protect against most STIs.

Together, both studies in this dissertation also demonstrate the importance of incorporating social context into research related to acculturation and sexual risk behaviors. As described by Portes and Zhou (1993), different acculturative trajectories and their resulting attitude changes, behaviors, and outcomes are influenced by where the immigrant adolescent resides. Both studies showed an advantage to living in a *less* acculturated, immigrant neighborhood, including greater embarrassment towards teen pregnancy for Hispanic female teens, and greater condom use among Hispanic female young adults. On the other hand, females living in *more* acculturated neighborhoods had lower embarrassment towards teen pregnancy and lower rates of condom use. While it is not possible to conclude from this dissertation that collective efficacy is the
direct, underlying cause of the protective nature of the immigrant enclave, I can speculate about its influence based on the work from Browning, Levanthal, Brooks-Gunn (2004) and Sampson et al. (1997). These authors stress the protective nature of immigrant neighborhoods, emphasizing their high social organization, social capital, and ability to supervise the behaviors of resident adolescents and create a normative climate that encourages values of the home culture. Thus, an immigrant neighborhood may create a normative climate that draws boundaries of acceptable behavior (Brewster et al 1993), including those related to unprotected sex and unmarried teen pregnancies.

Interestingly, females seem to be more sensitive to these neighborhood-level cultural influences than males. These findings parallel with others that have found that highly Hispanic neighborhoods were associated with decreased odds of female sexual initiation (Cubbin et al., 2005) and immigrant neighborhoods with strong cultural norms and shared monitoring of children were associated with lower than predicted teen birth rates (Denner et al., 2001). As discussed by Cubbin et al. (2005) shared cultural norms by neighborhood residents may strengthen messages about sexual behaviors, and since less acculturated young, Hispanic females are often placed under more rules and parental monitoring within their families, it is possible that these environments are replicated on a larger-scale within less acculturated immigrant neighborhoods. Collective efficacy theory offers a gender-neutral expectation for the effects of neighborhood collective supervision capacity. Yet, empirical evidence suggests that social controls of the neighborhood may be gender specific (Ensminger, Lamkin, & Jacobson, 1996; Entwisle, Alexander, & Olson, 1994; Ramirez-Valles, Zimmerman, & Juarez, 2002), with the social control of girls sexuality being more common on a large-
scale, functioning on multiple societal levels, including the family, neighborhoods, schools, and state (Nathanson, 1993).

Implications for Policy and Practice

As previously discussed, Hispanics are the largest and fastest growing racial and ethnic group in the United States. Currently at 55 million, the population is expected to reach 119 million by 2060 (Census Bureau, 2015). A substantial portion of this group is foreign born or children of foreign born parents, which demonstrates the importance of considering acculturation in policies and programs related to Hispanic sexual health. First, the empirical studies presented here reveal that a program or policy that focuses on individual behavior and personal responsibility of Hispanic youth may have limited impact on reducing risk behaviors that are, in fact, largely rooted in cultural socialization. For decades, HIV and STI prevention programs have been strongly influenced by cognitive theories of behavior change that emphasize individual knowledge, attitudes, beliefs, and skills (Kelly & Murphy, 1992). Yet, this dissertation confirms the importance of the elements outside the control or the cognition of the individuals, such as social norms and cultural traditions. It validates findings from other studies, such as a meta-analysis from Herbst et al. (2006) that found that interventions that integrated the belief of machismo were more effective at HIV prevention than those that did not. While individual concepts such as self-efficacy have been shown to be important in influencing sexual risk behaviors (Kerrigan, Ellen, Moreno, Rosario, Katz, Celentano, & Sweat, 2003), and should continue to be promoted in prevention efforts, these efforts should
also incorporate cultural competency and acknowledge the importance of acculturation, particularly when working with Hispanics or other immigrant populations.

In order to improve their designs, programs aimed at preventing teen pregnancy and promoting the use of contraceptives among Hispanic youth should maintain a staff highly trained in cultural competencies. According to Russell and Lee (2004), some practitioners believe achieving cultural competency means hiring Spanish speaking social workers to communicate with the teens and their parents. While overcoming the language barrier for immigrant families is an important issue, the authors also suggest that sharing the same cultural background does not guarantee cultural sensitivity. Even staff members who self-identify as Hispanic and Spanish-speaking should still receive training in the complexity and diversity of Hispanic cultural norms and values and how they tend to operate among various subgroups. As I have demonstrated, the influence of traditional gender norms may operate in an unexpected way given our preconceived notions about Hispanics. With the conflicting messages received by teens from traditional Hispanic culture on one hand and from contemporary U.S. culture on the other, the job of the intervention program staff should be to balance these competing cultural demands when it comes to teaching about sexual risk behaviors.

In addition, the current studies provide further evidence for the well-established importance of community among Hispanics, demonstrating a need for an emphasis on community-based intervention. Programs aimed at decreasing the disparities in STIs and teen pregnancy among Hispanic teens should tap into the immigrant community as much as possible in its design and implementation, perhaps focusing programs in local community centers, schools, churches, and other areas where they can create “buy-in”
among residents for their program goals. Policy initiatives should target key elements of neighborhood collective efficacy, such as “social cohesion, intergenerational closure, and informal social control” (Browning, Levanthal, & Brooks-Gunn, 2005, p. 775), to expand on what they achieve from working with youth alone. According to Browning and colleagues (2005), if programs can increase control capacities within neighborhoods, they may be able to create more effective joint supervision and develop local institutions and opportunities that encourage norms against teen pregnancy and discourage risk behavior (such as after school programs and recreation centers). Their findings suggest that adolescents who lack family oversight may benefit significantly from efforts to encourage collective efficacy within urban communities.

Limitations and Future Research

Despite its contributions, this dissertation is subject to some limitations. Given its quantitative design and limitations of the Add Health dataset, this study is forced to make assumptions about the underlying cultural factors that play a role in these relationships. While the cultural buffering hypothesis suggests that traditional norms and values of the less acculturated play an essential role in patterns of the immigrant advantage for sexual risk behaviors, few data sets allow for the operationalization of these cultural factors to determine if this is really the case. Therefore, more qualitative studies are needed that describe these factors and how they influence reproductive norms and behaviors of Hispanic youth. Many qualitative studies describing machismo and marianismo were conducted decades ago, and knowledge of cultural schemas needs to be updated. Gender theorists argue that machismo and marianismo have
changed in recent decades along with shifts in Latin American cultures. Kjeldgaard and Nielson (2010) argue that young Mexican females must now navigate between the traditional roles valued by their parents and their church and more modern, egalitarian ideas.

Another significant limitation of this dissertation is the method of using Census tracts as representative of neighborhoods. Researchers have struggled to come up with measures that describe neighborhoods both structurally and in terms of social organization. Scholars argue that neighborhoods should be defined by the spatial clustering of people and institutions (Suttles, 1972). In practice, however, most empirical studies rely on these administrative units for convenience purposes (Sampson, Morenoff, & Gannon-Rowley, 2002). This is another area where qualitative field work may present an improved model for describing the actual neighborhoods in which adolescents reside.

Furthermore, given the small number within each acculturation category, I do not break down the Add Health’s Hispanic sample by specific country of origin (Cuban, Puerto Rican, Mexican, etc.). Ignoring these origin differences may conceal important within ethnicity variations. Flores (2000) emphasizes that many Hispanics prefer to identify with their home country rather than an all-encompassing term, such as “Hispanic” and “Latino,” and encourages a disaggregate approach to analyzing the whole Latino population. Yet, other scholars argue that there is merit in analyzing the population as a whole (Roll & Irwin, 2008), and there are many consistencies in cultural aspects throughout the Hispanic population as a whole, including emphases on family, culture, Catholicism, and the Spanish language. The goal of this dissertation is not to
perpetuate inaccurate stereotypes about Hispanic individuals, but to examine the diverse characteristics, whether cultural, demographic, or otherwise, that play a role in their sexual norms and behaviors.

A final important limitation is related to the dataset. Add Health respondents were originally recruited from schools, and thus, adolescents who dropped out of school prior to 1994 would be underrepresented. Since nearly 30 percent of females who drop out cite pregnancy or parenthood as a reason (National Campaign to Prevent Teen and Unplanned Pregnancy, 2010), this survey design may present important bias. Yet, one advantage of the Add Health survey is that Waves II, III, and IV were collected outside of schools, so those who dropped out after Wave I were still interviewed. In other words, even if a teen dropped out of school due to pregnancy or parenthood, he/she would still be represented as long as it occurred after Wave I.

Conclusion

Using nationally-representative data from the Add Health study, the current dissertation examines the link between multiple dimensions of acculturation, at the individual and neighborhood level, and two sexual health outcomes among Hispanic youth: teen pregnancy norms and condom use. The unique studies contribute to the existing body of literature on Hispanic sexual norms and risk behaviors, the importance of acculturation in context, and the gendered perspective of acculturation. Although there is a rich field of study on the influence of acculturation on sexual risk behaviors, its effect has yet to be examined for these two outcomes using nationally-representative data. Furthermore, most studies rely on proxy measures of acculturation at the individual level alone, ignoring the importance of the social context of the acculturative
process. Therefore, the two empirical studies within this dissertation incorporate neighborhood components of acculturation in order to better explain the relationship between culture, place, and long-term sexual health. Finally, the studies in this dissertation examine these effects separately for males and females, demonstrating the important gender disparities that exist for teen pregnancy norms and condom use among Hispanic adolescents and young adults. Overall, the studies provide evidence for an “immigrant advantage” for each of the sexual outcomes, although they vary according to gender and the dimension of acculturation.
Table 1: Descriptive Statistics for Variables Used in the Analysis among Hispanic adolescents, Add Health, Waves I and II.

<table>
<thead>
<tr>
<th>Variable (Range)</th>
<th>Females (N=972)</th>
<th>Mean or %</th>
<th>% Embarrassed</th>
<th>Males (N=960)</th>
<th>Mean or %</th>
<th>% Embarrassed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embarrassed by a Teen Pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Yes</td>
<td>59.5</td>
<td>-</td>
<td>45.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>40.5</td>
<td>-</td>
<td>54.6</td>
<td></td>
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</tr>
<tr>
<td>Foreign Born, Non-English</td>
<td>22.0</td>
<td>69.1*</td>
<td>17.5</td>
<td>41.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native Born, Non-English</td>
<td>23.2</td>
<td>58.7</td>
<td>19.3</td>
<td>43.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Speaking</td>
<td>54.8</td>
<td>56.0</td>
<td>63.2</td>
<td>47.2</td>
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<td></td>
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<tr>
<td>Parental Closeness</td>
<td>4.4</td>
<td></td>
<td>35.8</td>
<td></td>
<td>54.7</td>
<td>48.5</td>
</tr>
<tr>
<td>High</td>
<td>52.6</td>
<td>63.8</td>
<td>64.2</td>
<td>39.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>47.4</td>
<td>54.7</td>
<td></td>
<td></td>
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<tr>
<td>Parent's Education</td>
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<td>2.0</td>
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<td>Less than High School</td>
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<td>55.7</td>
<td>34.7</td>
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<td></td>
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<tr>
<td>High School</td>
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<td>62.9</td>
<td>30.2</td>
<td>44.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some college or greater</td>
<td>34.0</td>
<td>60.2</td>
<td>35.1</td>
<td>49.3</td>
<td></td>
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<tr>
<td>Religious Importance</td>
<td>3.2</td>
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<td>3.0</td>
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<tr>
<td>High</td>
<td>42.5</td>
<td>64.5*</td>
<td>79.3</td>
<td>46.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>57.5</td>
<td>55.8</td>
<td>20.7</td>
<td>41.5</td>
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<td></td>
</tr>
<tr>
<td>Age at Wave II (13-19)</td>
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<td></td>
<td></td>
<td>16.1</td>
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<tr>
<td>Older</td>
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<td>56.9</td>
<td>41.2</td>
<td>49.3*</td>
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<tr>
<td>Younger</td>
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<td>58.8</td>
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<td>GPA (4.0 scale)</td>
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<td>2.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤2.5</td>
<td>56.1</td>
<td>66.3***</td>
<td>45.7</td>
<td>54.2***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2.5</td>
<td>43.9</td>
<td>50.8</td>
<td>54.3</td>
<td>38.1</td>
<td></td>
<td></td>
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<td>College Expectations</td>
<td>4.0</td>
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<td></td>
<td>3.4</td>
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<tr>
<td>High</td>
<td>68.7</td>
<td>66.1***</td>
<td>65.0</td>
<td>52.3***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>31.3</td>
<td>44.9</td>
<td>35.0</td>
<td>32.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In a Relationship</td>
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<td></td>
<td></td>
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</tr>
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<td>Yes</td>
<td>36.7</td>
<td>48.6***</td>
<td>37.3</td>
<td>40.7</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>65.8</td>
<td>62.7</td>
<td>48.2</td>
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*ρ ≤ .05 ** ρ ≤ .01 *** ρ ≤ .001 (two-tailed chi-squared test)
Figure 1. Bivariate relationship between individual acculturation and norms against teen pregnancy.
Figure 2. Bivariate relationship between neighborhood acculturation and norms against teen pregnancy.
Table 2: Odds Ratios for Logistic Regression Models of Pregnancy Embarrassment among U.S. Hispanic adolescents: Add Health Waves I and II.

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* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$ (two-tailed test)

a $p \leq .001$, b $p \leq .01$, c $p \leq .05$, d $p \leq .10$ (two tailed test) for gender differences.
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*p ≤ .05  ** p ≤ .01  *** p ≤ .001 (two-tailed chi-squared test)
Figure 3. Bivariate relationship between individual acculturation and condom use.
Figure 4. Bivariate relationship between neighborhood acculturation and condom use.
Table 4. Estimated Coefficients (B) and Odds Ratios (OR) for Logistic Regressions of Condom Use in Past 12 Months, U.S. Hispanic Young Adults, Add Health, Waves I and III.

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<sup>a</sup>P ≤ .05, <sup>b</sup>P ≤ .01, <sup>**</sup>P ≤ .001 (two tailed test).
<sup>a</sup>P ≤ .001, <sup>b</sup>P ≤ .01, <sup>c</sup>P ≤ .05, <sup>d</sup>P ≤ .10 (two tailed test) for difference between males and females.
APPENDIX A

ANALYSIS OF MISSING FOR SAMPLE OF ADD HEALTH RESPONDENTS

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APPENDIX B

ANALYSIS OF MISSING FOR SAMPLE OF ADD HEALTH RESPONDENTS

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REFERENCES


