Early Childbearing among Mexican-American Young Women: Place Matters

By

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A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Public Health in the Graduate Division of the University of California, Berkeley

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ABSTRACT

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Compared to all other racial and ethnic groups in the United States, Mexican-American adolescents have by far the highest rates of early childbearing. Within the public health literature, these disproportionately high rates have generally been explored as a function of acculturation, which is described as a process involving the cultural, social, and psychological changes that take place post-migration. In order to elucidate acculturation’s effect, specifically on the reproductive health and behavior of Mexican-Americans, this construct has received great attention from public health researchers examining disparities in early childbearing among the this population. Yet within sociology, where the Mexican-American immigrant population is also studied extensively, the focus is on the role of post-migration contextual factors (e.g., limited educational opportunities) and how these factors – as opposed to individual-level characteristics like acculturation – are related to the high rates of early childbearing.

Reflecting the sociological emphasis on the importance of structure, this dissertation considers the contexts into which the Mexican-American children of immigrants settle. While acculturation may play a role in creating risk, this process does not occur within a vacuum. These young women are exposed to specific contextual factors that may create a risk environment for early childbearing and related sexual risk behaviors. Thus, the goals of this dissertation are: to suggest that a consideration of context be further incorporated into public health investigations of the disproportionately high rates of early childbearing among Mexican-Americans; to illustrate how Mexican-American young women experience context as a risk for early childbearing, specifically at the neighborhood-level; and to determine how Mexican-American young women themselves conceptualize contextual risk as a driver of the disparate rates of early childbearing among their population.

In order to achieve these goals, I conducted three studies that focus on 2nd generation Mexican-American young women. This research includes: (1) a systematic literature review synthesizing the empirical evidence on the relationship between acculturation and early childbearing among this population; (2) a mixed methods study using focus groups and participatory photography to determine what neighborhood context is and how it is experienced by this population, with the aim of learning what neighborhood-level factors might influence risk for early childbearing; and (3) a small pilot study using focus groups to determine how this population conceptualizes their risk for early childbearing across neighborhoods in Alameda County, California. In the first study, I found that the research on acculturation and early...
childbearing among Mexican-Americans is inconclusive due to issues related to sampling, measurement, insufficient use of theory, and an absence of a consideration of context. Findings from the second study demonstrate that as part of their neighborhood context, Mexican-American young women experience racism and discrimination, gangs and violence, and limited opportunities for upward mobility, all of which are associated with the health of adolescents. Finally, in the third study, the young women identified individual, family, and community level factors – all supported by the literature on risks for early childbearing – that they believed to vary across neighborhoods, possibly influencing the disparate rates across the county.

The data collected from these studies highlights the importance of neighborhood characteristics as they influence risk of early childbearing among this population, demonstrating that contextual factors should be considered when investigating the high rates of early childbearing among Mexican-Americans. Moving forward, researchers investigating early childbearing among this population may benefit from an incorporation of neighborhood-level characteristics as potential risk factors for early childbearing among Mexican-American young women.
Every year, thousands of men and women cross the Mexican border, coming north to America in search of a better life. Sustained by faith, hope and desperation, they pursue a dream of giving their children the opportunities and life chances they did not have back home. In the face of staggering odds, they sacrifice and persevere.

I dedicate this work to these immigrants and their children.
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“Each friend represents a world in us, a world possibly not born until they arrive, and it is only by this meeting that a new world is born.”

~Anais Nin

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INTRODUCTION

Mexican Immigration

A new era of immigration to the United States began in the 1970s, characterized in large measure by a growing number of people emigrating from Latin America (Rumbaut, 2005). Described as the “fastest growing, youngest, and most fertile major racial/ethnic group” in the United States (Driscoll, Biggs, Brindis, & Yankah, 2001), the Latino population now comprises the largest minority group in the country with an estimated 46.8 million members ("Statistical Portrait of Hispanics in the United States, 2008," 2008). Almost forty percent of all Latinos in the US are foreign-born ("Statistical Portrait of Hispanics in the United States, 2008," 2008), with Mexican born individuals contributing the vast majority. Of all Latinos living in the US, 66% are of Mexican origin, and 37% of these Latinos (n=11.3 million) are foreign born ("Statistical Portrait of Hispanics in the United States, 2008," 2008).

Of course, while immigration plays a significant role with regard to these growing numbers, high rates of childbearing are a major factor as well. Mexican-origin women have a fertility rate higher than any other racial or ethnic group: 109/1,000 compared to 101.5/1,000 among all Latinos, 59.5/1,000 among Whites, and 70.6/1,000 among Blacks (Martin, 2009). Among Mexican young women ages 15-19, the birth rate is 92.9/1,000, and given this rate, this population has received increasing attention from policy makers and public health researchers concerned about the implications of these rates of early childbearing (Martin, 2009). As a distinct ethnic group, Mexicans are often perceived to be distinct from most Americans, and their cultural values and practices have been questioned as possibly relating to this population’s high rates of childbearing. Subsequently, an increasing number of research studies on Latinas and childbearing have examined the potential roles of both nativity and culture related to this outcome.

Within the context of Latino and Mexican immigration, much of the public health research has focused on the “Latina Paradox,” which refers to epidemiological findings that Latinas, particularly Mexicans, in the US tend to have birth outcomes comparable to non-Latino whites (Fuentes-Afflick & Lurie, 1997; Markides & Coreil, 1986; Mendoza, Ventura, Valdez, Castillo, Saldivar, Baisden et al., 1991; Palloni & Arias, 2004). These findings are considered paradoxical due to Mexicans’ lower socioeconomic status (SES) profiles and lower levels of maternal education, which are known risk factors for adverse birth outcomes (Braveman, Cubbin, March, Egerter, & Chavez, 2001; Parker, Schoendorf, & Kiely, 1994). With this paradox, the findings are primarily among the foreign-born; thus, culturally-based behaviors have been theorized to play a role in conferring protective effects that override the risks of recent immigrants’ low SES and education, as well as limited access to quality health care (Abrado-Lanza, Chao, & Florez, 2005; Arcia, Skinner, Bailey, & Correa, 2001).

Interestingly, it has been shown that with more time spent in the US and over increasing generations, these paradoxically good health outcomes decline, and health status draws closer to-and sometimes below- that of non-Latino Whites (Abrado-Lanza et al., 2005; Scribner, 1996; Vega & Amaro, 1994). In trying to determine what could be causing this diminished health, many researchers have investigated the cultural characteristics associated with Mexicans and how these culturally-based behaviors (e.g., diet, sexual health) may be shifting with years of residence in the US (Guendelman & Abrams, 1995). It is theorized that as Mexicans are
increasingly exposed to the US context, they may lose the protective cultural values and practices of their countries of origin and subsequently adopt risky health behaviors associated with life in the US. Thus, much of the research on Mexican health – including reproductive health – has focused on acculturation (Arcia et al., 2001; Lara, Gamboa, Kahramanian, Morales, & Hayes Bautista, 2005; Scribner & Dwyer, 1989; Solis, Marks, Garcia, & Shelton, 1990) broadly defined as “the process whereby immigrants change their behavior and attitudes towards those of the host society” (Rogler, Cortes, & Malgady, 1991, p.585).

**Early Childbearing**

With regards to early childbearing, acculturation among Mexican-Americans has emerged as a variable of strong interest. This may be due to the view that, as an immigrant ethnic group, Mexicans have distinct cultural values and norms that shape their behaviors and ultimately impact their health. In order to elucidate the effect of acculturation, specifically on the reproductive health and behavior of Mexican-Americans, this construct has received great attention from public health researchers examining disparities in early childbearing among this population given their high birth rates.

Compared to all other racial and ethnic groups in the US, the adolescent birth rate among Mexican-Americans, 92.9/1,000, is the highest by far. Notably, while pregnancy and birth rates are high among this population, data has shown that Latina teens (which includes Mexican-Americans) are actually less sexually experienced than their Black and White counterparts and that their sexual activity rates are quite close to those of White adolescents females, a population with the lowest rates of teen pregnancy among all racial/ethnic groups (Abma, Martinez, Mosher, & Dawson, 2004; Gilliam, Berlin, Kozloski, Hernandez, & Grundy, 2007). One study among Mexican-American adolescents specifically showed that foreign-born Mexican teens were less likely to initiate sex as compared to US-born Mexicans and other non-Mexicans, but were much more likely to become pregnant and give birth (Aneshensel, Becerra, Fielder, & Schuler, 1990). Yet despite having these rates of sexual activity comparable to Whites, Latina adolescents, and Mexican-American particularly, have the highest probability of childbearing compared to all other racial/ethnic groups (Abma et al., 2004; “An Overview of Latina Teen Pregnancy and Birth Rates,” 2008; Ryan, Franzetta, & Manlove, 2005).

**Looking to Sociology**

Within the sociological research on immigrant outcomes, acculturation is not a variable generally studied, with researchers instead looking at immigrant assimilation and incorporation. Additionally, there is a specific emphasis on the initial cohort of US-born children of foreign born immigrants, also known as the 2nd generation (Alejandro Portes & Zhou, 1993). The primary reason for this focus on the 2nd generation is the view that these youth- the first in their families to be born in the US- can help elucidate the ability of immigrants to succeed in this country; as such, educational, economic, social, and health indicators for this population are extensively studied to gauge how well immigrants are faring in this country (Alejandro Portes & Zhou, 1993; Zhou, 1997). Within this set of literature, the high rates of early childbearing among 2nd generation Mexican-American immigrants are viewed as an indicator of downward assimilation. This view stands in contrast with the public health perspective, which regards the high rates as an outcome of acculturation. Although the terms “acculturation” and “assimilation”
are sometimes used interchangeably, this tendency is inaccurate. Acculturation can more accurately be thought of as the initial step in the entire assimilation process (Gordon, 1964).

One variant of general assimilation theory is segmented assimilation, which is a theoretical perspective refuting the view that there is a core, mainstream American culture to which all immigrants inevitably acculturate or assimilate. The theory of segmented assimilation (TSA) provides a framework for conceptualizing the process by which immigrants become incorporated into the social system of stratification that exists in this country (Zhou, 1997). An important piece of the TSA is the focus on the second generation, or the US-born offspring of foreign-born immigrants (A. Portes & Rumbaut, 2005). Rather than looking solely at how first generation immigrants integrate into American social and economic structures, the TSA emphasizes the process of integration over time and space and across generations. According to this theory, there are at least three potential paths upon which immigrants can travel as they integrate into the US: Path 1) Immigrants can fully integrate with white, middle-class Americans through successful assimilation; Path 2) Immigrants can assimilate “downward,” into permanent poverty alongside the disadvantaged underclass; or Path 3) Immigrants can advance socially and economically while retaining their own values and close co-ethnic community ties (Alejandro Portes & Zhou, 1993; Zhou, 1997). The question inherent in the theory of segmented assimilation is this: what factors influence the paths that different immigrant groups take as they integrate into American society (Zhou, 1997)?

Adverse Outcomes of Early Childbearing

While some researchers have claimed that the negative outcomes usually associated with early childbearing are questionable (Geronimus, 1997, 2003; SmithBattle, 2007), the adverse consequences of having a child during one’s teen years have been documented and include—but are not limited to—high school dropout, limited employment opportunities, and increased poverty (Hardy, Shapiro, Astone, Miller, & Brooks-Gunn, 1997). Consider the following quote:

“During the years of the transition to adulthood from the late teens through the twenties, as post-secondary educational attainment has become critical to social mobility for both men and women...early childbearing [has] emerged as [a] turning point...that can derail life course trajectories by blocking or disrupting educational and occupational opportunities to develop human capital and move into the economic mainstream” (Rumbaut, 2005).

Over 53% of all Latinas become pregnant at least once before turning 20 years old (National Campaign analysis of Martin, 2006), and this disparity in teen childbearing among Latinas, including Mexican-Americans, has significant social and economic implications. Mexican-Americans females have a much lower rate of high school completion that the overall female population (55.8% compared to 85.1%), elevating their risk for limited employment opportunities as a result of low educational attainment (“U.S. Census Bureau; American Community Survey, 2006-2008 3-Year Estimates,”). Notably, only 46% of the Mexican-American population holds a high school diploma, and only 6% holds a bachelors degree (“U.S. Census Bureau; American Community Survey, 2006-2008 3-Year Estimates,”). Because early childbearing in this population is so closely linked to school dropout, and because low educational attainment has severe implications for later socioeconomic success, the prevention of teen pregnancy and early motherhood could be considered one of the most direct strategies for
enhancing the lives of these adolescents ("An Overview of Latina Teen Pregnancy and Birth Rates," 2008). The persistent inverse relationship between SES and a range of health outcomes has been reviewed extensively (Kaplan, Haan, Syme, Minkler, & Winkleby, 1987), demonstrating that low-income Mexican-American young women are at high risk for poor health, above and beyond the risks associated with early childbearing.

Overview of Dissertation

By investigating early childbearing among Mexican-American adolescents using a lens emphasizing cultural values and the process of acculturation itself, little attention has been given to what these immigrants are actually acculturating to. The process of acculturation involves more than simply adopting a new culture; it also involves situating oneself within an entirely new social, geographic, and economic context. For most immigrants, the immediate, tangible contexts are the neighborhoods and communities in which they settle. I argue that we need to consider the types of neighborhoods where immigrants live and how neighborhood characteristics may create a risk environment for early childbearing and related sexual risk behaviors.

This dissertation seeks to: (1) emphasize that a consideration of context be further incorporated into public health investigations of the high rates of early childbearing among Mexican-Americans; (2) illustrate how Mexican-American young women experience context as a risk for early childbearing, specifically at the neighborhood-level; and (3) determine how Mexican-American young women themselves conceptualize contextual risk as a driver of the disparate rates of early childbearing among their population. In order to achieve these goals, I conducted the three studies included in this dissertation.

The first study is entitled “Acculturation in Context? A Systematic Literature Review and Theoretical Critique of Acculturation and Early Childbearing in Mexican-American Adolescents.” This systematic literature view seeks to (1) synthesize the empirical evidence on the relationship between acculturation and early childbearing (and related proximal determinants) among Mexican-American female adolescents; (2) identify and describe how acculturation is theorized and measured in this set of literature; (3) examine how these studies consider acculturation in a larger immigration context; and (4) make recommendations of how a more comprehensive theoretical framework that incorporates contextual variables can guide public health research on early childbearing among Mexican-American young women. Literature from PubMed, PsychINFO, and Sociological Abstracts from 1985 through 2008 was reviewed, and 13 studies were retained based on stringent inclusion criteria. Considerable variation was found with regard to acculturation’s impact on the outcomes under investigation, as well as the measurement of acculturation itself. Across the literature there was a general a-theoretical reliance on the potential role of cultural values and norms in shaping the sexual behavior of Mexican-American adolescents. In only two cases were values measured explicitly. The immigration context (both pre and post migration) of these adolescents was generally not considered. I highlight four challenges areas including measurement, sampling, acculturation theorizing, and lack of a consideration of context. Based on these findings, I offer suggestions for future research, specifically regarding the use of theory and the potential for considering acculturation context as it relates to risk environments for early childbearing in this population by incorporating a broader segmented assimilation framework.
The second study, “Neighborhood Contexts Experienced by Mexican-American Young Women: Risk Environments for Early Childbearing?,” was conducted over one month with Mexican-American young women in order to determine how neighborhood context is experienced and how it creates risk for early childbearing. This was a qualitative study using focus groups in addition to participatory photography, and 110 young women were recruited from the community health education arm of a clinic in Alameda County, California. They participated in four focus groups, and they took photographs of their neighborhoods and daily contexts. This study found that in terms of what neighborhood context is, block is often synonymous with neighborhood, but is not necessarily the place where the young women spend their time and may not be where risk is encountered. Photos also illustrated that the transient spaces young women travel through are a part of their risk context as well. With regards to how neighborhood context is experienced, participants described how racism and discrimination, gangs and violence, and limited opportunities for upward mobility were aspects of neighborhood that impacted their daily lives. These findings, taken together with existing literature, demonstrate the importance of structural factors in the lives of adolescent Mexican-American young women, and have the potential for informing research investigating the relationship of neighborhood contextual to early childbearing among this population.

“In Their Voices: Mexican American Young Women Explain Why Neighborhoods Matter for Early Childbearing” was the third and final study, which was a small pilot using focus groups held with members of this population to learn how Mexican-American young women themselves see risk for early childbearing being created and maintained across the neighborhoods in which they live. This study also utilized qualitative methods, and focus groups were conducted with 16 young women recruited from two community-based youth organizations in Alameda County, California. Using a map of the county depicting the rates of early childbearing across zip codes, the Lead Author discussed the disparate rates with participants, asking for their theories on why the rates are so different across places. The findings from this study show that, based on their experiential knowledge, community members have important insight into the differential rates in early childbearing across populations and places.

Taken together, these studies demonstrate that contextual factors should be considered when investigating the high rates of early childbearing among Mexican-Americans, particularly at the neighborhood level. The neighborhoods experienced by these young women are characterized by multiple contextual risk factors for early childbearing, including racism, discrimination, gangs, violence, and limited educational and employment opportunities. Mexican-American young women themselves see these characteristics as related to early childbearing, and they are aware that these risks are not equitably distributed. Context matters when it comes to race and health. Not addressing this context leaves the responsibility for risk behaviors and adverse health outcomes squarely on Mexican-American young women’s shoulders, with no consideration of the social, political, and economic forces that result in limited opportunities for this population in the US. By emphasizing the importance and experience of context, this research contributes to the growing body of research on the effects of neighborhood characteristics on the health of young people. By conducting research that utilizes a conceptual framework acknowledging the role of neighborhood context in the lives of immigrant adolescents, this study aims to demonstrate the importance of structural factors as they relate to the public health issue of early childbearing among Mexican-Americans.
REFERENCES


Health and Human Services Centers for Disease Control and Prevention National Center for Health Statistics' National Vital Statistics System.


INTRODUCTION

Compared to all other racial and ethnic groups in the US, the Mexican-American adolescent birth rate of 92.9/1,000 is the highest by far (Martin, Hamilton, Sutton, Ventura, Menacker, Kirmeyer et al., 2009). This rate is more than twice the rate for all US adolescents (41.9/1,000), more than three times that of non-Latino Whites (26.6/1,000), and one and half times that of non-Latino Blacks (63.7/1,000) (Martin et al., 2009). As researchers have investigated these disproportionately high rates of early childbearing among Mexican-Americans, acculturation – generally conceptualized in the public health literature as the adoption of “American” culture as indicated by English language preference or time spent in the US - has emerged as a variable of interest. This focus on the acculturation of Mexican immigrants, and Latino immigrants more broadly, has grown largely because of evidence suggesting that health-related norms and behaviors shift with the length of immigrants’ exposure to the US (Abraido-Lanza, Chao, & Florez, 2005; Arcia, Skinner, Bailey, & Correa, 2001; Lara, Gamboa, Kahramanian, Morales, & Hayes Bautista, 2005; Unger, 2000).

Although the relationship between acculturation and Latina reproductive and sexual health has been examined widely, it is complex and poorly understood. A recent review of the literature on Latino adolescents’ sexual and reproductive health found mixed support for the influence of acculturation on the sexual and reproductive health of adolescents (Afable-Munsuz & Brindis, 2006). Notably, as with most research in this area, this review considered evidence from studies that looked at the Latino pan-ethnicity broadly and did not focus specifically on Mexican-Americans, the largest Latino sub-population in the US ("Statistical Portrait of the Foreign-Born Population in the United States, 2007," 2007). Because the term “Latino” refers to people from over 20 different countries with a wide range of beliefs, values, and practices, looking at this panethnic group as a whole may mask the affect of acculturation on particular sub-populations. In order to better understand the affect of acculturation on the sexual behaviors and norms resulting in high rates of early childbearing among Mexican-Americans, it is necessary to synthesize the literature that deals specifically with this distinct ethnic group.

Since acculturation appears to have some influence on the sexual and reproductive health of Mexican-American adolescents, this construct has received great attention from public health researchers studying the disparities in early childbearing rates affecting this population. But public health researchers are not alone in considering the role acculturation plays in driving the rates of early childbearing among Mexican immigrants. Sociologists also consider this outcome among this population, but in their investigation they apply the broader theoretical framework of assimilation, of which acculturation is only one component. While the terms “acculturation” and “assimilation” are sometimes used interchangeably, this tendency is inaccurate, since acculturation (also termed “cultural assimilation”) is one of several steps in the overall assimilation process (Gordon, 1964). The role of acculturation in shaping immigrant outcomes was first considered in classical assimilation theory, which views assimilation as an inevitable, uniform, and necessary process for successful immigrant integration into the American middle class (Warner & Srole, 1945)
Within the sociological literature, classical assimilation theory is questioned as to its relevance in explaining early childbearing and other outcomes among contemporary immigrants (Greenman & Xie, 2008). Portes & Zhou offer a critique of the classic view with their segmented assimilation theory, which refutes the idea that there is a core, mainstream, American social, economic, and cultural context to which all immigrants assimilate, and suggest that there is more than one way of “becoming American” (Portes & Zhou, 1993; Zhou, 1997). According to this theory, there are at least three potential paths that immigrants and their offspring, the 2nd generation, can take once arriving in the US: Path 1, which is characterized by immigrant integration into middle-class America; Path 2, which occurs when immigrants assimilate “downward” into permanent poverty alongside the disadvantaged underclass; or Path 3, which is characterized by immigrants’ social and economic advancement via deliberate maintenance of close co-ethnic community ties and economic integration (Portes & Zhou, 1993; Zhou, 1997). Variables predicting the divergent paths that immigrants take are contextual and include the following: pre-migration factors including parents’ legal status, family economic resources, and parental human capital including education level and job skills; as well as receiving community factors such as socioeconomic conditions, employment opportunities, and the presence and strength of community co-ethnic ties (Portes, Fernandez-Kelley, & Haller, 2005; Portes & Zhou, 1993; Rumbaut, 2005; Zhou, 1997; Zhou, Lee, Vallejo, Tafoya-Estrada, & Sao, 2008; Zhou & Xiong, 2005).

Segmented assimilation theory predicts that the risk for early childbearing rates will be highest among the children of Path 2 immigrants, who often have limited education and job skills and land in low-income, disorganized neighborhoods upon immigrating to the US. According to this theory, Path 3 immigrants would have the lowest childbearing rates, based on their close co-ethnic ties and strong economic outcomes. The data bears this out: sociological studies have demonstrated that early childbearing rates are higher among 2nd generation immigrants whose families have lower socioeconomic resources and who settled in high-poverty neighborhoods in the US (Portes et al., 2005; Rumbaut, 2008). Notably, it is not the level of immigrants’ acculturation to the US that predicts early childbearing, but rather a range of contextual variables that capture pre- and post-migration characteristics of immigrants and their environments.

Among sociologists, debate exists regarding the utility of segmented assimilation theory. For example, Alba & Nee argue that by the 3rd or 4th generation, Mexican immigrant outcomes start to look much less segmented and much more like those of native White Americans (Alba & Nee, 2003). But while discussion continues regarding the assimilation trajectories of immigrants (e.g., segmented versus straight-line), two things are clear. First, acculturation is one component of a larger process of immigrant integration in the US, and looking at this variable absent its theoretical grounding may be misguided. Second, in addition to the resources and characteristics that immigrant families bring with them, the characteristics of the contexts into which they settle play a critical role in shaping the 2nd generation’s behaviors and related health outcomes.

This review contributes to the literature by attempting to add clarity to the acculturation/early childbearing relationship among Mexican-Americans by critically examining the current empirical evidence and exploring how acculturation is theorized to influence sexual risk behaviors and early childbearing among this population. Examining the theories used will show how vulnerability to early childbearing among this specific population is theorized in the literature and may highlight gaps based on Segmented Assimilation Theory, a more comprehensive framework viewing acculturation as a process requiring an accounting of context.
Objectives

This systematic literature review has four objectives: to (1) synthesize the empirical evidence on the relationship between acculturation and early childbearing (and related proximal determinants) among Mexican-American female adolescents; (2) identify and describe how acculturation is theorized and measured in this set of literature; (3) examine how these studies consider acculturation in a larger immigration context; and (4) make recommendations of how a more comprehensive theoretical framework that incorporates contextual variables can guide public health research on early childbearing among Mexican-American young women.

METHODS

Retrieval

PubMed, PsycINFO, and Sociological Abstracts were searched using variations and Boolean connections of the following terms in combination: “acculturation”; “adolescent”; “teen”; “youth”; “Hispanic”; “Latino”; and “Mexican.” The set of articles rendered from this search (n=893) was further limited to those looking specifically at reproductive health, with pregnancy and birth as outcomes, as well as other proximate determinants (e.g., attitudes, norms, sexual activity, and contraceptive use), reducing the number of articles to n=280. All abstracts of studies published through December 2008 in English-language and in peer-reviewed journals were reviewed. A “related articles” search was also performed based on the reference lists of the studies reviewed to identify additional publications, but this did not return any new articles.

Inclusion and Exclusion Criteria

This initial set of abstracts (n=280) was reviewed for each study’s eligibility. The following inclusion criteria were utilized: the study must (a) be published in a peer-reviewed journal and written in English; (b) include statistical hypothesis testing; (c) include females under the age of 18; (d) specify that the study population consists of a majority of Mexican-Americans or conduct analyses on a Mexican-American subsample; and (e) explicitly investigate the relationship between acculturation and early childbearing, including those studies investigating risk behaviors for early childbearing (e.g., contraceptive use, sexual norms). Studies using proxies for the term “acculturation” (e.g., English language preference) without specifically referring to the proxy as an acculturation measure were excluded. Based on this inclusion criteria and our focus on female Mexican-Americans adolescents, 13 studies were retained for analysis.

Data Abstraction

Only findings resulting from statistical testing of hypotheses directly examining the relationship between acculturation and the relevant outcomes were extracted. In many cases, one study used multiple acculturation measures and outcomes of interest, thus contributing more than one finding to this review. Also assessed by this review are methodological approaches including study design, study sample, use of theory, and the incorporation of contextual variables (i.e., pre-migration and receiving community characteristics).
RESULTS

Table 1 displays a summary of the 13 studies selected for this review.

Study Designs and Samples

Most of the studies (n=8) used samples larger than 300 participants, with the remainder of studies ranging from samples sizes of 63 to 209 participants. Seven studies were conducted in California, five of which took place in the southern part of the state and one that also used data collected in Texas. Three studies were located in the Southwest US, and three studies were located in the Midwest US. These samples came from schools (n=3), clinics (n=4), area/household probability (n=4), an HMO setting (n=1), and one combined clinic/population sample (n=1). Two studies sampled only Mexican-Americans and two studies sampled Mexican-Americans and Whites, but conducted Mexican-American specific analyses. Six studies sampled Hispanics or Latinos but indicated that a majority of the sample was comprised of Mexican-Americans. Of the three remaining studies, one extrapolated from census tract data to determine the sample was Mexican-American and the other two assumed their sample was Mexican-American based on (1) surname and (2) recruitment site service area.

Eight studies sampled females only. Of the remaining five, which sampled females and males, two conducted gender-specific analyses. Eleven of the 13 studies controlled for socioeconomic status, behavioral factors, and socio-cultural factors. Two studies were longitudinal, and the remaining 11 employed a cross-sectional design.

Measures

Studies utilized an array of acculturation measures, some using multiple measures. Language was the predominant measure used to capture acculturation, and was assessed in a variety of ways across all 13 studies. Six studies used multiple measures of language including language spoken generally, at home, with peers, most often, and during study interview; a combined measure of language spoken at home and nativity; and a combined measure stipulating that an affirmative answer for three out of five variables (nativity of parents, nativity of teens, US citizenship, English preference, and US residence greater than five years) indicated acculturation. The other seven studies used elements of validated acculturation scales that assess a range of factors including ethnic identity and language proficiency, use and preference (see Table 2 for additional detail). Three studies used the language sub-scale of the Short Acculturation Scale for Hispanics (SASH) (Marín, Sabogal, Marín, Otero-Sabogal, & Perez-Stable, 1987), and one study used an adapted SASH; one used the Acculturation Rating Scale for Mexican-Americans (ARMSA) (Cuellar, Harris, & Jaso, 1980) and one used a modified ARMSA that considered language use and ethnic identity; one study used the ARMSA II (Cuellar, Arnold, & Maldonado, 1995), a multidimensional revised version of the original unidimensional ARMSA that also captures cultural orientation; and one study (which used SASH) also used the Bicultural Involvement Questionnaire (BIQ) (Szapocznik, Kurtines, & Fernandez, 1980).

Nativity, considered in four studies, was the second most common measure of acculturation. As mentioned above, two studies considered nativity in conjunction with a language measure. One additional study looked at a measure of cultural enjoyment (e.g., enjoyment of the culture’s music) as well as language, and one last study included the
respondent’s proximity to Mexico in its acculturation assessment. In contrast to sociological research on immigrant outcomes, generational status was considered explicitly in only one study.

**Synthesizing the Evidence**

The empirical evidence can be grouped broadly into three categories: sexual activity (including sexual initiation; number of lifetime sexual partners; intercourse within the last year; age at first intercourse; and sexual initiation); norms and beliefs (including fertility expectations and condom beliefs); and contraceptive use/fertility (including family planning compliance; number of pregnancies; and ever had an abortion).

Nine studies investigated the relationship between acculturation and sexual activity using 10 different acculturation measures and investigating seven different outcomes, including: time to first intercourse (Upchurch, Aneshensel, Mudgal, & McNeely, 2001); age at first intercourse (Gilliam, Berlin, Kozloski, Hernandez, & Grundy, 2007; Kaplan, Erickson, & Juarez-Reyes, 2002; Reynoso, Felice, & Shragg, 1993; Slonim-Nevo, 1992); intention to have intercourse (Flores, Tschann, & Marin, 2002); ever had intercourse (Adam, McGuire, Walsh, Basta, & LeCroy, 2005; Jimenez, Potts, & Jimenez, 2002); sexual experience (Tschann, Flores, Marin, Pasch, Baisch, & Wibbelsman, 2002); sexual activity in the past year (Ford & Norris, 1993); and number of partners in the past year (Ford & Norris, 1993). Of these nine studies, two found no relationship between the assessed acculturation dimension (both using the SASH to assess English language use and one using the BIQ) and engaging in sexual behavior or having intentions to have sex. Two additional studies demonstrated mixed findings, depending on the acculturation measure used and the outcome investigated. One showed a significant, positive relationship between English language use (assessed with SASH) and sexual activity in the past year, but found no relationship with the number of sexual partners in the past year. The other demonstrated a significant, positive relationship between the acculturation measure (English used during interview) and time to first intercourse, but found no relationship between acculturation assessed by nativity and time to first intercourse. The remaining five studies found significant, positive relationships between acculturation (English language use/preference and US nativity) and age at first sexual intercourse and ever having had intercourse.

Three studies examined the relationship between acculturation and participants’ norms and beliefs. Outcomes included condom beliefs (Norris & Ford, 1994); fertility expectations (Sorenson, 1985); and attitudes towards sex (Jimenez et al., 2002). Of these three studies, one demonstrated a positive association between acculturation (English language use assessed with the SASH) and condom beliefs, indicating that acculturated individuals held more positive views of condoms and condom use (e.g., not agreeing with the statement “women who carry condoms are looking for sex”). One other study demonstrated no relationship between acculturation (a combined measure of English language spoken in home & US nativity) and attitudes towards sex, which included wanting to marry a virgin and thinking that it is acceptable for a teenage girl to have sex with someone she likes. The remaining study used four acculturation measures, demonstrating no relationship between speaking English with peers and fertility expectations, and showing a negative association between English language spoken at home, higher generational status, and proximity to Mexico and fertility expectations. This latter finding suggests that un-acculturated participants expected lower numbers of births, a surprising finding given the prevailing belief that Mexican cultural values predispose young women towards having larger families.
Four studies looked at the relationship between acculturation and contraceptive use/fertility, including condom and contraceptive use in the past year (Ford & Norris, 1993); post-delivery visits for family planning (Jones, Kubelka, & Bond, 2001); ever having had an abortion (Kaplan, Erickson, Stewart, & Crane, 2001); and ever using contraceptives (Jimenez et al., 2002). Only one of the four studies found a significant, positive relationship between acculturation (English language use) and condom use (with a “knew well” partner). This study also found no relationship between this acculturation measure and other contraceptive use. The remaining three studies, using the ARMSA, the ARMSA II, and a combined measure of nativity and language spoken in the home, showed no relationship between acculturation and contraceptive use/fertility.

**Acculturation Theories**

Of the 13 studies reviewed, three made explicit use of a theoretical grounding in acculturation (Reynoso et al., 1993; Upchurch et al., 2001). One study (Reynoso et al., 1993) used the Psychosocial Model of Acculturation, which proposes that individuals adopt the host culture’s values and norms via exposure, a process that becomes more complete with increased exposure and is expedited by being younger and male (Szapocznik, 1978). This theoretical model distinguishes between behavioral acculturation, which refers to the adoption of lifestyle factors including language and customs, and value acculturation, which refers to the adoption of the host culture’s general values orientation (Szapocznik, 1978). Based on research demonstrating that among pregnant teens Mexican-Americans have different psychosocial problems than Whites or African-Americans, the researchers attempted to determine if, compared to acculturated pregnant Mexican-American teens, unacculturated Mexican-American teens would have more psychosocial problems. The authors measured various aspects of behavioral acculturation including language and length of exposure to the US. However, although the authors acknowledge the potential for values to shape behavior, values were not actually measured.

The other study was grounded in “acculturation theory and Hispanic sociocultural concepts that shape gender socialization and interpersonal interactions” (Upchurch et al., 2001, p.1160). In this study acculturation was described as a process in which teens struggle to maintain traditional Hispanic values (e.g., women’s obedience to men, the importance of virginity, caregiving as a woman’s primary role) while adopting host culture norms around gender and sexuality (Upchurch et al., 2001). This study hypothesized that based on the retention of traditional values, less acculturated teens (assessed by language of interview) were at a lower risk for having sex, and teens living in less acculturation families (assessed by nativity of parent and teen) would have lower risk of having sex. While these authors are very clear in their description of the theory used and the important effect of values on sexual behavior, neither the Hispanic values nor those of the host country (US) were assessed by this study. Additionally, it was not clear how the authors certified that these values are traditional or reflective of the sending community’s values.

The third study tested the model of subcultural norms and values, assessing acculturation using a modified ARMSA (to capture respondents’ preferred language and ethnic identity), as well as respondents’ perceived parental control over dating, level of religiosity, and premarital sexual standards (Slonim-Nevo, 1992). The researchers sought to understand the fertility-related
behavioral differences between Mexican-American and White adolescents, and hypothesized that this model could help to “explain the observed tendency of Mexican-American female adolescents to delay sexual intercourse relative to their non-Hispanic White counterparts” (Slonim-Nevo, 1992, p.335). Of all 13 studies reviewed, this was the most thorough in terms of specifying and measuring the values presumed to shape behavior. However, one limitation – shared by the other studies – was that the end points of the values/norms scale were not specified. In other words, the researchers surmise that acculturating teens are transitioning between Mexican and US cultural norms, but no measurement or specification of these norms was included. Further, the theoretical model was not actually in place to explain acculturation’s role; rather, acculturation was one variable tested to illuminate the role of the subcultural norms and values model.

Among the remaining 10 studies, the effect of acculturation on sexual and reproductive health outcomes was either not clearly theorized or not theorized at all. For example, suggesting that along with acculturation comes increased acceptance of “Hispanic women [being] more knowledgeable about sex and [having] more sexual experience” (Ford & Norris, 1993, p.317) but not measuring changes in this supposed acceptability. Optimally, theory should drive the selection of measures used in these studies, so the limited use of theoretical frameworks was a drawback of these studies in general.

Acculturation in Context

Of the 13 studies reviewed, one considered acculturation in context but only considered the role of receiving community characteristics, not pre-migration factors (e.g., parents’ legal status, parental capital) (Upchurch et al., 2001). In this study, neighborhood concentration of co-ethnics was assessed using Census data, and the researchers included all Hispanics in their assessment, not specifically determining the density of Mexican-Americans. The other community characteristic measured was the level of ambient hazard, characterized by social disorder, breakdown of social relations, personal threat, and physical deterioration of the neighborhood. This study found that adolescents living in low-to-medium Hispanic density neighborhoods were at greater risk of having sex, as were adolescents living in neighborhoods with higher levels of ambient hazards. This study considered the role of neighborhood-level variables in influencing the outcome under investigation (time to first intercourse), but did not assess differential rates of acculturation based these factors.

Challenges of Findings

Considering these three sets of findings (empirical evidence, acculturation theories used, and acculturation in context), the evidence for acculturation’s relationship to early childbearing and related proximal determinants among Mexican-American females is mixed. Four studies found no relationship, five found significant associations, and four found both significant and non-significant associations, depending on the acculturation measure used and the outcomes investigated. There were no consistent findings across measures or outcomes, possibly due the challenges detailed below.

Challenge 1: Measurement
The measures of acculturation within this set of literature generally reflect an assumption of linearity and unidimensionality, with acculturation viewed along a single continuum. The ARMSA and the SASH, used by six of the studies, are examples of this unidimensional view. These scales reflect an understanding of acculturation as a process whereby immigrants lose their culture of origin as they become immersed in the host country and adopt its mainstream cultural values and norms (Cabassa, 2003; Lara et al., 2005; Rogler, Cortes, & Malgady, 1991). This view negates the reality that the acculturation process is fluid and dynamic, and ignores the fact that individuals do not have to sacrifice one culture to gain another. Unidimensional scales ask respondents to choose between American and Mexican cultures on a number of domains. This forced choice may not capture the full, complex experience of acculturation. Further, acculturation is not a static variable. As individuals transition developmentally, their responses on such scales may shift as well, leading to different levels of acculturation across the life course.

The inconsistent findings generated may also be due in part to the use of proxy measures, since they provide only an indirect assessment of this complex process and in the absence of contextual factors may lead to an incomplete understanding of the effect that acculturation is having on this population’s sexual behavior and health. For example, if a study theorized that acculturation creates risk for having sex at an earlier age via its influence on an individual’s cultural values and norms, language spoken with peers is not a direct measure of this risk. In contrast, asking about peers’ values and their importance may provide a more direct assessment of the acculturation process as well as providing an indication of the mechanism by which acculturation influences the individual’s behavior. Further, speaking English, used in these studies as a proxy for acculturation, is a characteristic of virtually all second generation youth, so English use/preference may be acting as a proxy itself for being second generation. As substantial sociological research has shown, the second generation has a behavioral and outcome profile that is distinct from the first generation, so knowing the generational status of participants could help to more clearly illuminate their risk (Portes et al., 2005; Portes & Rumbaut, 2001; Rumbaut, 2005, 2008). Finally, in many cases, no rationale was given for why or how the selected proxies were chosen or how the researchers believed that the measure could be used to assess the values believed to shape behaviors, further limiting the interpretation of results.

Regardless of how acculturation is measured within this set of literature, the two cultures that these individuals are presumed to be navigating are not assessed and generally not defined, so while acculturation measures may indicate where someone is on an acculturation “spectrum” the ends of the cultural spectrum are not clear. Additionally, a key assumption about the process of acculturation is that the immigrants are being newly exposed to a distinct host culture, and that this exposure produces changes to values, norms, and ultimately behaviors. Given the importance of knowing whether an individual has previous exposure to the values/norms/language of the host culture, it is notable that studies do no ask about prior exposure in their designs.

**Challenge 2: Sampling**

Another potential cause of the inconsistencies across the findings could be related to the populations sampled. For example, of the four studies that found no relationship between the acculturation variable and the outcome of interest, three did not completely restrict their sample to Mexican-Americans. While these samples were primarily comprised of this ethnic group, the findings may have been clouded by a lack of ethnic specificity. One other study showing no
relationship sampled both males and females but did not conduct separate gender analyses, which may also have influenced the findings since young men and women experience the acculturation process differently. Further, only one of the 13 studies explicitly assessed the generational status of the participants, a variable that reveals much about the experience of an immigrant group. While some studies did consider nativity, being born in Mexico but immigrating to the US under the age of 5 is very different from immigrating at age 15, which is another reason assessing generational status is important. Not knowing the generational status of the individuals sampled limits our ability to understand the results.

**Challenge 3: Theorizing Acculturation**

One additional challenge that studies may have faced in establishing and interpreting the findings could be related to the limited use of theory. Only two of the 13 studies specified a theory driving their inquiry, leaving much room for increased use of theory in future research. For those studies that did find a significant relationship between acculturation and the outcome of interest, limited theorizing creates a challenge for understanding the mechanism by which being acculturated creates risk.

All 13 studies explicitly or implicitly reflect the view that as adolescents become acculturated, they undergo a process of shifting values and norms. These studies surmise that there are traditional cultural values such as virginity and chastity, the importance of family and children, and the subservience of females embedded within Mexican (and Latino) culture, and that these values influence the reproductive behavior of adolescents. However, despite sharing this view of culture as strongly related to the outcomes of interest, only two of the 13 studies identified and assessed the specific cultural values believed to play a role in shaping the sexual and reproductive behavior of the study participants (i.e., perceived parental control over dating, religiosity, and premarital sex standards (Slonim-Nevo, 1992); women’s role scale and familism scale (Kaplan et al., 2001).

**Challenge 4: Consideration of Context**

One last challenge that these studies might have encountered could be that they did not consider contextual variables. Of the 13 studies, only one explicitly investigated the potential role of neighborhood characteristics in shaping outcomes. Unfortunately, while this study acknowledged that neighborhood-level factors could influence risk, it did not examine how individual acculturation may differ based on the variation across neighborhoods (e.g., poverty level, co-ethnic concentration). Given the stated importance of exposure to US cultural values in shaping the behaviors of adolescent immigrants, it would seem that knowing the characteristics of the immigrants’ neighborhoods and communities would help illuminate what teens are acculturating to. Further, by not considering the role of pre-migration factors such as parental job skills or education level, these studies are limited in their ability to understand the acculturation process in the larger context of immigration.

**DISCUSSION**

**Acculturation & Early Childbearing among Latinas**
As the evidence demonstrates, there is no clear relationship between acculturation and early childbearing related outcomes among Mexican-American adolescents. While positive associations were found between various acculturation variables and a range of sexual and reproductive health behaviors and attitudes, in other cases no relationship was established. Different measures of acculturation were also used within studies (e.g., language and nativity), often with one measure showing a relationship and the other measure demonstrating no relationship to the study outcomes. Furthermore, outcomes differed across studies, making it difficult to draw firm conclusions about the association between acculturation and adolescent early childbearing. As stated in more detail above, the inconsistencies in findings could be related to this variation in both acculturation and outcome measurement across studies, to the populations sampled given that different subpopulations (e.g., females, the 2nd generation) have distinct acculturation trajectories, and to the lack of measurement of cultural values and norms as well as contextual variables. Finally, with the majority of studies neglecting to explicitly theorize the relationship between acculturation and the outcome investigated, it is difficult to conceptualize this variable’s true effect on early childbearing.

Given the ambiguous findings and limited theorizing, the mechanism(s) underlying the association between acculturation and sexual risk outcomes remains somewhat elusive. These ambiguities do not mean that an acculturation/early childbearing relationship does not exist. Rather, they suggest that public health researchers may be better served by utilizing theoretical frameworks that promote a consideration of context to better understand the process of immigrant integration and how this process plays out among adolescents and their reproductive health behaviors. With none of the 13 studies in this review utilizing segmented assimilation theory to guide their inquiry, there is much opportunity for bringing theory into future work in this area. As a concrete example, consider that most of the studies captured acculturation with some measure of language, but even when shown to be significantly related to the outcome, this proxy measure shed little light on exactly how acculturation influenced adolescent risky behaviors.

A Step Forward: Considering Acculturation in Context

Within the sociology literature, ample evidence exists demonstrating the important role of pre-migration factors (e.g., family-level resources; parental level of education) and receiving community characteristics (e.g. reception of immigrants; employment opportunities; co-ethnic ties) in understanding outcomes among immigrant populations. Notably, within this literature, all Mexican-American 2nd generation females are not found to be at the same level of risk for early childbearing based on their levels of acculturation. Rather, risk is shaped by a combination of family and community-level characteristics within the context of immigration. This is different from the way that acculturation is conceptualized and measured in the literature reviewed here, which reflects a view that acculturation occurs similarly across all contexts, happening in identical ways regardless of an individual’s social, geographic, or political position. While early acculturation theory stipulated that immigrant groups would be exposed and inevitably accepted into the “core culture” of America and its “social cliques, clubs, and institutions” (Gordon, 1964), the assumption that immigrants acculturate to a standard set of mainstream American values is problematic. American society is highly stratified, both according to race/ethnicity and socioeconomic status, and Mexican-Americans entering the US generally settle in large urban neighborhoods marked by poverty, limited access to healthcare, and inadequate educational opportunities for their offspring (Kaplan et al., 2001). These characteristics are unlikely to be
what early acculturation theorists had in mind when discussing mainstream American values and norms.

An important family-level contextual factor that has considerable influence on the outcomes of immigrant teens is parental capital, which includes socioeconomic resources as well as education and job skills (Portes et al., 2005). Some of the studies did capture some element of respondents’ parental socioeconomic resources, either by socioeconomic status or parental education or both. Yet instead of looking at the differences in individual acculturation based on this important contextual variable, studies controlled for it, possibly resulting in a muted association between acculturation and the outcome of interest. Further, socio-economic status is an important variable influencing immigrant assimilation, and as such is along the causal pathway, thus mediating the relationship between acculturation and the sexual health outcome being investigated.

Segmented assimilation theory is one potential framework with utility for considering context, and may offer new ways for public health researchers to conceptualize the risk for early childbearing among Mexican-Americans and more accurately depict the immigration process. For example, imagine the potentially divergent life trajectories of two adolescents, both born to Mexican immigrant parents in the US: one young woman’s highly educated parents enter the US legally and secure employment, settling in a middle-class neighborhood with good schools and safe streets. The other young woman’s parents entered the US illegally as low-skilled labor migrants. They live in cramped housing in an inner-city neighborhood characterized by poor schools and high crime. How might these different environments impact these young women’s risk for early childbearing? From the perspective of the acculturation framework, they would face equal risk due to their English language use and nativity, but segmented assimilation theory provides more conceptual nuance in considering potential mechanisms influencing their health behavior.

Future Directions for Public Health

In closing, I offer two concrete recommendations for public health researchers seeking to elucidate the relationship between acculturation and early childbearing among Mexican-American 2nd generation immigrants.

First, consider context. By investigating early childbearing among Mexican-American adolescents using a lens emphasizing Mexican cultural values and the role of acculturation itself, little attention has been given to what these immigrants are actually acculturating to. The process of acculturation involves more than adopting a new culture; it also involves situating oneself within an entirely new social, geographic, and economic context. While knowing which cultural practices, values, and beliefs a specific ethnic group holds post-migration to the US is of value, a broader understanding of how adolescents integrate into receiving communities will provide useful information regarding their reproductive health and well-being since we know that “micro-contextual and individual-level characteristics have proved only partially effective” in explaining the racial and ethnic differences related to adolescents’ sexual and reproductive health behaviors (Browning, Leventhal, & Brooks-Gunn, 2004, p.698).

Second, ground inquiry in a theoretical framework that enables the consideration of context. When it comes to discussing the high rates of early childbearing among Mexican-
Americans, questions regarding context are not frequently asked, and theories emphasizing the role of contextual factors are not utilized. Instead, research tends to focus on “culture”, usually poorly defined, and assumes there are predisposing values inherent to this population. By focusing so singularly on the impact of factors such as language on the risk for early childbearing, intervention implications lean toward the individual-level, preventing researchers and practitioners from taking wider aim with more structurally framed efforts. Further, grounding research in sound theory will ensure that the elements of study design appropriately capture that theoretical perspective in the sampling, measurement, analysis and interpretation of findings. Segmented assimilation is one theory that emphasizes pre- and post-migration variables – in addition to considering language used and place of birth – which may aid researchers in elucidating the important role of context in influencing the rates of early childbearing among Mexican-American adolescents. Given our knowledge of the diverse environments into which immigrants settle and establish families, a fuller understanding how contextual factors create risk environments for early childbearing is in order.
REFERENCES


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<td>Jimenez 2002</td>
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<td>Age; attitudes toward sexuality; attitudes towards self; edu. goals; Language spoken at home; nativity</td>
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<td>Cross-sectional survey</td>
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<td>Tschann 2002</td>
<td>MA</td>
<td>Sexual experience</td>
<td>Age; parental conflict; emotional distress</td>
<td>Adapted SASH combined with BIQ</td>
<td>N=141</td>
<td>Longitudinal interviews &amp; questionnaires</td>
<td>No relationship to sexual experience.</td>
</tr>
<tr>
<td>Adam 2005</td>
<td>AZ</td>
<td>Ever had intercourse</td>
<td>Age; sex; family structure; program location; religiosity; free school lunch; rural residence; grades</td>
<td>Language spoken most often</td>
<td>N=7270</td>
<td>Cross-sectional surveys</td>
<td>Language positively associated with ever having sexual intercourse.</td>
</tr>
<tr>
<td>Gilliam 2007</td>
<td>Chicago, IL</td>
<td>Age at sexual initiation</td>
<td>Age; experience of forced sex</td>
<td>Preferred speaking language; language spoken in home; language as child</td>
<td>N=306</td>
<td>Cross-sectional survey using face-to-face interviews</td>
<td>Language positively associated with sexual initiation.</td>
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Neighborhood Contexts Experienced by Mexican-American Young Women:
Risk Environments for Early Childbearing?

INTRODUCTION

When considering the health and well-being of Mexican-American adolescents, one health outcome emerges as a predominant concern: early childbearing. Adolescent Mexican-American young women are disproportionately affected by teen pregnancy and early childbearing: compared to all other racial and ethnic groups in the US, the Mexican-American adolescent birth rate of 92.9/1,000 is the highest by far (Martin, Hamilton, Sutton, Ventura, Menacker, Kirmeyer et al., 2009). This rate is more than twice the rate for all US adolescents (41.9/1,000), more than three times that of non-Latino Whites (26.6/1,000), and one and half times that of non-Latino Blacks (63.7/1,000) (Martin et al., 2009). The adverse outcomes of having a child during one’s teen years have been documented and include but are not limited to high school drop-out, limited employment opportunities, and increased poverty (Hardy, Shapiro, Astone, Miller, & Brooks-Gunn, 1997). Among Mexican-Americans, having a child as a teenager is linked to limited post-secondary educational attainment, which is critical for upward mobility, particularly among immigrant populations (Rumbaut, 2005). Because early childbearing in this population is so closely linked to school dropout, and because low educational attainment has severe implications for later socioeconomic success, the prevention of teen pregnancy and early motherhood could be considered one of the most direct strategies for enhancing the lives of Mexican-American adolescents (2008).

In their attempts to understand and address the disproportionately high rates of early childbearing affecting Mexican-Americans, researchers have considered a range of factors including cultural values and practices, immigration-related stress, shifting norms, and religious influences (Afable-Munsuz & Brindis, 2006; C. Kaplan, Erickson, Stewart, & Crane, 2001; C. P. Kaplan, Erickson, & Juarez-Reyes, 2002; Upchurch, Aneshensel, Mudgal, & McNeely, 2001). The majority of this research has focused on the micro-level, considering the role of individual, peer, and familial factors as they relate to the risk for early childbearing. As a result, acculturation – generally conceptualized in the public health literature as the adoption of “American” culture as indicated by English language preference or time spent in the US – has emerged as a variable of interest. This focus on acculturation has grown largely due to research suggesting that shifts in health-related behaviors and norms correspond to increased immigrant exposure to the US (Abrado-Lanza, Chao, & Florez, 2005; Arcia, Skinner, Bailey, & Correa, 2001; Lara, Gamboa, Kahramanian, Morales, & Hayes Bautista, 2005; Unger, 2000).

Of course, Mexican-American acculturation is embedded in multiple contexts that shift and change over the life course, and when considering the influence of acculturation on early childbearing, it is important to ask what adolescents are presumed to be acculturation to. Acculturation does not occur independently of the context in which it is occurring, and the macro-level characteristics associated with micro-level acculturation should be considered. Within the sociological literature, a substantial body of research has demonstrated that a range of contextual factors influence how immigrant and their offspring assimilate, or integrate, into the US. Among these factors, there are a number of variables at the neighborhood-level which are directly associated with adverse outcomes – including early childbearing – among the children of immigrants, or 2nd generation: the experience of racism/discrimination; deteriorating labor market conditions in the receiving community; limited educational and employment
opportunities available to the children of immigrants; and the presence and strength of
community co-ethnic ties (Portes, Fernandez-Kelley, & Haller, 2005; Portes & Zhou, 1993;
Rumbaut, 2005; Zhou, 1997; Zhou, Lee, Vallejo, Tafoya-Estrada, & Sao, 2008; Zhou & Xiong,
2005).

Within public health studies on acculturation, there are few studies that have considered
how these post-migration factors, including neighborhood context, may be related to differential
acculturation processes and subsequently different levels of risk for early childbearing among 2nd
generation Mexican-Americans. Yet there is a large body of public health research considering
the role of neighborhood factors as they relate to the risk for early childbearing, independent of
acculturation. One study, looking at a nationally representative survey of adolescents,
demonstrated the importance of neighborhood residence with regards to early childbearing
among Latinos by showing that the racial/ethnic composition of neighborhoods was associated
with sexual initiation, and the use of birth control was associated with the concentration of idle
youth within a neighborhood (Cubbin, Santelli, Brindis, & Braveman, 2005). Another study
demonstrated that divergent rates in early adolescent sexual activity by race/ethnicity were largely explained by neighborhood-level concentrated poverty (Browning, Leventhal, & Brooks-
Gunn, 2004), and poverty-level by zip code has also been shown to play a role in the birth rates
of Hispanic teens (Kirby, Coyle, & Gould, 2001). Other research has shown that US-born Latino
teens living in neighborhoods with high Latino concentrations were at higher risk for having had
sexual activity in the past year (Frank, Cerda, & Rendon, 2007). Finally, neighborhood collective
efficacy has also been found to have a significant, negative association with sexual activity
among Latino youth (Browning et al., 2004; Frank et al., 2007).

Based on this extensive body of evidence, it is clear that multiple contextual factors at the
neighborhood-level play a significant role in shaping the risk of early childbearing among the
American-born children of Mexican immigrants. But while it is clear that neighborhood context
can facilitate the risk for early childbearing among this population, several questions remain.
First, what do these young women consider to actually be their neighborhood context? The
general assumption is that the neighborhoods in which people live directly defines their expose,
but is this the case for all populations? Second, it is not clear how the neighborhood context is
actually experienced by these young women in their day-to-day lives. For example, one measure
frequently used by studies examining contextual effects is neighborhood-level poverty, shown to
be strongly associated with early childbearing among this population. However, poverty is a
multi-dimensional phenomenon and while it is helpful to know that poverty plays an important
role in creating risk environments for this outcome, the mechanism by which poverty influences
early childbearing is not clear. Thus, it may be helpful to learn what these young women
consider to be their neighborhood context, as well as to learn how they experience that context
and what aspects of it are particularly salient in their daily lives.

In order to better understand how neighborhood context is conceptualized and
experienced by Mexican-American young women and how this context may in turn influence the
rates of early childbearing among this population, the authors focused on one specific area, the
Fruitvale neighborhood in Alameda County, California. In California, the teen birth rate is
37.1/1,000, and the teen birth rate for Alameda County is 26.5/1,000 ("Teen Births and Costs by
California Counties, 2007," 2009). In Alameda County, 15.9% of the population of Alameda
County is of Mexican origin. This population is geographically clustered in the area examined
by this study. By honing in on one specific context, the authors aim to develop an in-depth analysis of multiple aspects of context across one month of data collection.

METHODS

Study Design

This study used a qualitative, mixed-methods descriptive design incorporating data collected over four weeks via focus groups, participatory photography, and photo-elicitation in order to gain a more nuanced understanding of how neighborhood context is conceptualized and experienced by Mexican-American young women, and how these experiences may influence rates of early childbearing among this population.

A mixed-methods design was used to allow for multiple avenues by which neighborhood could be described by the young women. Focus groups were selected as the primary means of data collection as these discussions allow researchers to gather in-depth data and to focus on a given topic with “considerable interaction” in a limited amount of time (Kidd & Parshall, 2000). Additionally, focus groups allow researchers to gather a range of reactions, inspiring participants to think of things they might not mention in an interview (Kitzinger, 1994). Further, focus groups allow participants to ask and answer questions using their own terminology. Finally, there is evidence that focus groups are of some value when working with Latinas from lower socio-economic backgrounds (Madriz, 1998). In order to build on the information collected during the traditional focus groups, photography was also selected as a data collection method.

The use of visual methods has been found to advance standard qualitative methods “by eliciting both more and different types of information than interviews using words alone (Fleury, Keller, & Perez, 2009, p. 678) citing (D. Harper, 2002) and (Harrison, 2002). Photo elicitation was chosen as a strategy to enhance the focus group data because, collected in conjunction with photographs, qualitative data has been found to be vastly more detailed, vivid and descriptive (Capello, 2005; Collier, 1957; Frith & Harcourt, 2007; Samuels, 2004). By grounding the data collection in participants’ everyday lives, a visual method such as photography allows for capturing multiple details about particular places and spaces experienced by participants. While the current research is not Photovoice, a method of community-based participatory research with a focus on participatory action in which participants take photographs to represent their worlds and analyze these photos to bring their meanings to the surface (Wang & Burris, 1997), it does borrow from the Photovoice tradition in the development of research methods and emphasis on participant driven photography. Finally, photo-elicitation was used as a group-based technique for analyzing the photos taken by participants. “Photo elicitation is a visual method that uses photographs to foster and move qualitative inquiry beyond the verbal, to allow women to represent dimensions of their lives, including cultural, social, and contextual resources, through images” (Fleury et al., 2009, p. 678). Instead of conducting one-on-one interviews as photo elicitation is usually done, the authors engaged in a group discussion of the photographs with all participants, allowing for much richer discussion of the photo subjects and different experiences with them.
Setting and Participants

Participants were recruited from the Community Health Education (CHE) arm of a large community-based clinic in Alameda County, California that provides extensive health-related services to a diverse community, including a large percentage of the Mexican and Mexican-American population. The CHE component of this Clinic was selected due to (1) its location within the neighborhood that this research focuses on; (2) its extensive history and strong relationship with this neighborhood; and (3) its focus on and commitment to serving and working with Mexican-Americans in Alameda County, CA. A researcher went to the site and explained the purpose of the research study to the CHE Director; the CHE staff members were then informed about the project and in turn told their peer health educators about the project.

Participants were drawn from two after-school peer health education programs run by the CHE arm of the clinic. This research project has a very specific focus on US-born Mexican-American young women, particularly those between the ages of 15-17, when teen childbearing rates are the highest. Thus, a purposive sampling strategy was used to recruit young women who met the following criteria: female; Mexican-American; between the ages of 15-17; non-pregnant and non-parenting. An initial target sample size of 8-10 was sought, and 10 young women expressed interested; all 10 young women were deemed eligible to participate and were invited to join.

Procedure

This study was one month long and included 4 weekly sessions. Data was collected via focus groups, participatory photography, and photo-elicitation. The purpose of the research was thoroughly explained to the participants. The Lead Author conducted the focus groups using a focus group guide designed to identify what participants consider to be their neighborhood context and how they experience neighborhood context. The guides included specific questions but relied primarily on semi-structured, open-ended queries that covered a list of specific topics related to the research questions. While the focus group guides included an overarching focus on risk for early childbearing, the guides were flexible and iterative, allowing for new queries to be added as data collection progressed. The Focus Groups occurred during weeks 1 and 3, and all participants attended.

During the second week of the project, participants were trained on ethical and safety issues associated with photographic data collection. Ethical issues established included, for example: (1) The need for obtaining consent from others when taking their photographs; (2) The importance of being safe when taking photographs in public; (3) To not photograph places where people have a reasonable expectation of privacy; (4) To not photograph illegal activities. In discussing these ethical and safety issue with participants, questions included: (1) What types of situations might put someone at risk when taking photographs? (2) What types of situations should be avoided when photographing in public? (3) If a place is too dangerous to photograph but is important, what strategies can someone use to convey the intended message? After completing the ethics and safety training, the participants were each given a 27-exposure, single-use disposable camera and asked to take photographs over the course of one week. The young women returned the used cameras at the beginning of Week 3.
In addition to the cameras, young women were given the following instructions: ‘Use these cameras to photograph places that have meaning to you, and/or places that you see every day.’ In the photo elicitation discussion, participants’ photographs were displayed throughout the room, grouped by both photographer and the photo subject (e.g., intersections, buildings, parks). Participants were asked to re-categorize the photographs based on what they understood the pictures to be, and a discussion ensued about the themes within the photographs as well as the meanings behind them.

Focus group discussion, including the photo elicitation group discussion, averaged ninety minutes in length. Parental permission was obtained for all participants, and all participants provided verbal and written assent as well. The study was undertaken with ethical approval granted by the UC Berkeley Committee for the Protection of Human Subjects. Participants received a $60 gift card to a local clothing store, and dinner was provided at all FGDs. All Focus Group Discussions were conducted in a private room at the community site.

Analysis

Focus group discussions were digitally recorded, transcribed, and checked for accuracy. Transcribed text was entered into ATLAS.Ti, which was used to manage the coded data. After each group discussion, the facilitator listened to the recoding to review the session, making notes on observations and keeping a detailed log of reflections and field notes. After transcribing the discussion, the facilitator reviewed the transcriptions multiple times, making additional notes as necessary. The transcriptions of the focus group discussions and group photo-elicitation were used as the data for analysis. A coding scheme was developed using directed content analysis, a technique using “existing theory or research [to] help focus the research questions” (Hsieh & Shannon, 2005, p.1281). Thus, analysis was initially guided by key concepts developed based on the research objectives and the literature on neighborhood factors at play in the lives of adolescent Mexican-American young women. From these key concepts, coding categories were developed, and coding began with these pre-determined categories. As coding progressed, data that did not “fit” into these categories were identified and set aside for separate analysis in order to determine whether categories needed refining or new codes needed to be developed. Within each coding category subcategories were developed as necessary. While the coding was not entirely inductive, the analysis was an interactive process, allowing the data to drive the development of codes in addition to using the pre-determined coding structure.

Initial coding was conducted by the Lead Author. Analysis began while data collection was still ongoing, which helped to inform the development and inclusion of additional questions and probes in upcoming focus groups. During the initial analysis, participants were continually engaged to strengthen the validity of the research findings. In addition, the content of the Focus Groups was continually evaluated throughout the data collection and analysis processes, informing the development and refinement of a coding scheme for partitioning the data categorically.

RESULTS

Participants

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Ten young women participated in this study. Participants were all between the ages of 15 to 17. Eight of the participants were born in the US, and the other two immigrated to the US as infants less than one year of age. All participants had parents who entered the US as undocumented labor migrants. Participants were from a range of locations in Mexico, and nine of the young women had spent summers or long vacations back in Mexico. California was the only state the participants had lived in, and all ten had grown up in the Bay area and spent the majority of their adolescence in Alameda County, California.

What is Neighborhood Context?

When asked what participants considered to be their neighborhoods, they said that it “goes by blocks…and it goes by gangs.” This point was further illustrated by one participant sharing that she lives in “the 60s,” but since this is the territory of a well-known gang, some people may simply refer to the block as “Norteno territory” instead of specifying the block number.

Groups of blocks that share very similar characteristics are often thought of as one neighborhood, for example, all of the 80s are called “The Deep” because this area is located “deep in Oakland, far away.” Further, participants explained that for them, the neighborhood or block was not necessarily the place they considered their “turf.” (See Fig. 2).

It’s a bit different, cause there are people that live in the 80s or something, and they’re from a different place. Like they grew up somewhere else and they have a different turf. But then they stay somewhere else cause they moved. In response to this statement, another participant states:

Yeah. Cause I live in the 30s, but I’m like from the Dubs.

Expanding on this point, participants explained that their block or neighborhood may not be the place where they spend the majority of their time. For some of the young women, being inside
the home is the only time they spend on their block, and because they felt that “home is lame,”
participants tried to limit the time spent there. Several participants identified the place where
they hang out as distinct from the block where they live.

I live on 85th. But I don’t really go out there. Just to the liquor store and my house. I
come out here, in Fruitvale. (See Fig. 3).

Fig. 2: Turf nowhere near her block  Fig. 3. The liquor store and my house

Participants also felt that the neighborhood context they experienced daily extended far
beyond the blocks on which they lived. School was thought to be the place where teens spend the
majority of their time, and participants thought that most students do not go to school in their
own neighborhoods. None of the young women lived close to their school or had schools on
what they considered to be their block. Depending on the area where the school was located, the
school photographs appeared very distinct, with one photo depicting an open, green space and
another showing a fenced-in playground. (See Figs. 4 and 5).

Fig. 4: Open school walkway  Fig. 5: Chain link school field
A couple of the young women described the transient space between home and school as part of their context, even though they did not consider it to be on their block or part of their turf. (See Fig. 6).

**Fig. 6:** Waiting for the bus every day, not on block or turf

Finally, in addition to the block and school, malls and other shopping venues were the places the young women spent their remaining free time. These stores were generally described as being far from participants’ blocks and homes.

**How is Neighborhood Context Experienced?**

When discussing their experiences within these contexts and photographing their different aspects, three themes emerged: experiencing discrimination, opportunities for learning, gangs, and unity.


Discrimination emerged as a major theme characterizing participants’ common experience across neighborhood contexts. Participants felt that the discrimination aimed at them was related to both their perceived status as immigrants as well as their Mexican ethnicity. Being targeted as “immigrants” was particularly disturbing to the young women since they do not see themselves as immigrants in any way. Participants all described being called derogatory names such as “beaners” or “wetbacks.” Regarding their ethnic identity, participants explained that while they are officially “Americans” they usually refer to themselves as Mexican, and they talked about feeling targeted due to their ethnicity as well.

I just say I'm Mexican. If they think I'm an immigrant, that's on them. Honestly, I think it's dumb calling someone an immigrant because being American...nobody was born here, except the Native-Americans, right?

Stores and other shopping venues were discussed as places where participants felt particularly unwelcome and scrutinized because of being Mexican. The young women felt that being a Mexican in a store where primarily White people shop makes you “a target,” and that
when you go to these stores “… all the white people, they just stare at you.” Participants said this experience happens most frequently in “…nice stores, kind of expensive…[where] they think you're gonna steal something.” They speculated that the discrimination originated from others’ perception of Mexicans as gang-affiliated or associated:

When you hear of gangs, it's usually the main gangs that are known here [Oakland area], which is mostly Mexicans. That's why I think like, people are racist towards us because they believe that we're the ones who started all the gangs and stuff. And like if they look at you, they like look down on you, cause of what like people do around here and whatever

In addition to these encounters while shopping, participants experienced similar treatment in school settings, primarily by teachers who “discriminated against the Mexican people” or by gangs “targeting Mexican students.” Participants indicated that teachers spoke openly about their perceptions of and views towards Mexicans:

My friend, she was pregnant, and she was like 14, and it was in a classroom...the teacher, she was black, she was talking about how my friend was pregnant, and she [the teacher] was like "Oh, she's pregnant, huh? Well, she's Mexican."

Discrimination was not something the participants encountered while in their own neighborhoods or on the block, however, they described incidents of discrimination that occurred as they traveled between their homes and other places:

Like one time I was at the bus stop and there was like Black people, this Black lady and this White lady talking about how like Mexicans shouldn't even get jobs, and they always take away their jobs and stuff. And I was just sitting there and I was just looking at them. Like, I felt mad about it, and I was gonna start talking shit to them, but they were like old ladies so I was like, let them talk shit.

Education is a must

Achieving upward mobility was a second emerging theme, and education was discussed as one of the most vital components of this mobility. Several participants described school in negative terms, both related to the teachers and administrators, as well as the curriculum and quality of education they were receiving. However, despite disliking high school, participants plan to attend college and felt strongly that college degrees were necessary for reaching their employment aspirations and achieving financial stability.

I can't stand the retarded-ass teachers. But education is a must. Like the more education you get the more money you get. And the less things you have to do when you're old and stuff. Like, if you have hella years in college, your work gonna be hella easy.

But for some participants, graduating from high school is a major challenge. Several of the young women had been suspended from school, and one participant was facing an expulsion that would bar her from attending any public schools in Alameda County:
They (Principals) just find everything to fuck with you about. Like this year, they be doing like hella...like with me, right now, like anything I do they be suspending me- I'm getting expelled right now. It's like they don't have no tolerance. It's like, "Get out." I gotta do hella shit. I gotta go to hella meetings to see if I gotta be expelled.

While some of the participants had siblings who had gone to college, none of these family members had stayed in college or graduated. Family financial needs were the primary reason given for why siblings had dropped out of school, with the following quote typifying these experiences:

My brother was going to college, too. Like he graduated [high school] barely, and then he was starting, but he had drop out because he had to start working, cause remember when I told you that my dad was the manager of a company, like a supervisor? They been closed that company a couple years back. So my dad doesn't work, he hasn't worked in like 2 years. And then um, he's already over age and stuff, so he can't find a job. So my brother had to quit college. He was already in it and then he had to quit.

Yet despite not knowing people who had graduated from college, participants’ professional goals all require college and possibly post-graduate education. Some of the young women listed Doctor, Nurse, Pediatrician, Veterinarian, Architect, and Lawyer as their chosen profession. Other participants identified Police Officer, Homicide Detective, Parole Officer, and Wedding Planner as their career goal. The young women did not know many people who worked in these types of jobs, instead stating that most of the people they know were stuck in jobs the participants described as undesirable (e.g., construction, fast food work, house cleaning, cooking, retail). Participants felt that attending college was critical for obtaining more rewarding jobs and that with limited education, “people don’t really have any other choice than just getting those [low paying, low skill] jobs. They can't really go on to be teachers, because they need a college degree for that.”
Although all the participants expressed a desire to attend college and stated that a college education was necessary for upward mobility, only one of the young women had developed a specific career plan including education and employment goals:

I am going to go to San Jose State, for theater and modeling. And then, I want a fall back, which is getting into law, and then when I’m old and wrinkly, when I don’t want to do my modeling, you know, I want to be a homicide detective in Oakland.

Participants expressed that given their financial situations they might have to struggle more to achieve their college bound aspirations.

Like if you’ve got all the money, they’re gonna send someone who can pay all the payments they have to throughout the year at college. But sometimes you get more opportunities if you come from a place with more crime scenes because you get more information and had to struggle. There’s like different scholarships they give you based on where you live at or if you’re Mexican. Or if you’ve been a victim of violence, they usually do things like that. You gotta struggle more to get there, rather than those who already have the money to pay.

A couple of the participants were aware of resources at school and other scholarship opportunities available to them, but when asked about how or where they would go in order to apply for these scholarships, or what might be needed – in addition to good grades – to apply for a scholarship, participants were not sure. Only one young woman was involved in a college preparatory program:

“I’m in a program called AVID, that helps us um, with college. And achieve every goal that we have in school.” (See Fig. 8).

Fig. 8: Achieving every goal you have
Gangs & Violence

Gangs were the predominant characteristic discussed with regards to the character of the participants’ neighborhoods. Participants discussed their knowledge of gangs in depth, including the different gangs in the area, their respective turfs, and gang histories.

Like in the 30s, it's all one specific gang, but if you go to the Deep, it's one specific gang. So yeah, in Funktown, in the 50s it's another specific gang. So they have, like, their territory.

While participants were instructed not to directly photograph gang members or gang activity, they did take numerous pictures of tagged property, gang symbols (e.g., rosaries, hand signals), and gang-associated places. As one participant put it,

We live here. We know what’s going on. If you wear red, they’re going to regard you as a Norteno. If you wear a black rosie or purple rosie, you gonna be a Border Brother. So it’s like we know who gang bangers are by the way they look or by the way they act, and the way they dress.

![Fig. 9. Gang hand sign](image9.png) ![Fig. 10. Gang rosary](image10.png)

Participants described a number of gang-related experiences they were aware of or with which they had been directly involved, and all participants agreed that gangs were very present in their schools. One of the young women attending a military school photographed a friend who is a gang-member attending the same school:

This is a gangbanger, from my school. I took it because it's funny how it's a gangbanger and it’s supposed to be a military, good-school. [The teachers] started realizing that people with rosaries- the chains- were gang-related, and they can’t wear them at school no more. Well either way, we can’t wear jewelry, but they still hide them in there. (See Fig. 11).
Participants talked in depth about their experiences with and knowledge of gang-related violence, describing incidents where they were in danger as well as situations where they heard that others had been targeted by gangs.

I stay on X avenue and that’s supposedly Norteno territory. And one time I was going to walk to the store with my aunt. There was a liquor store there, and they sell tacos right there. They shot somebody, like it was on Friday. We were going to the store and we heard gun shots. I was like “Oh shit.” And my mom said “You guys can’t go.” And I was like “Why?” And she said it wasn’t safe. And I didn’t go, but my aunt went. One of my friends said that the guy was a gangbanger. But then the guy at the store told us that it was a regular guy eating tacos and he just happened to have on this color blue.

Another participant took a photo that appeared to be nothing more than a calm, shady street scene; yet it was actually showing an intersection where the young woman had narrowly escaped being shot by gang members.

Oh, that’s at my grandma’s house in West Oakland! And there’s like dope-dealers right there, you can’t really see. Well right there, yeah, they were staring at me when I took the picture. I was kind of scared. Cause they probably thought I was police or something. I don’t know. They were just staring. I just took it, cause it’s like a liquor store and right there, there’s always shots. You remember I told you guys about…I almost got shot at there. (See Fig. 12).
One of the young women knew of several people who had died as a result of gang violence, and in her photographs she took multiple pictures of memorial tags:

RIP Little Freddy. It’s on my block. That dude – I didn’t know him- I live on E 16, and I guess they killed him on E 17, and a lot of his homies are kickin’ it at that spot, and they just tagged it all up. This one too, like 6 years ago, they killed him too, like around there, and this is the spot where his homies were kickin’ it, and they wrote RIP Guerrito. It’s just something I see every day when I walk through my block. (See Figs. 13 and 14).

But despite these violent experiences, gangs were not seen as universally negative, and all of the participants stated that they had friends or family who are gang members. While participants acknowledged that gangs and gang violence were a major issue in their community, they also saw positive aspects of gangs. Further, participants felt that gangs in the neighborhood are not necessarily an issue, “as long as you don’t get shot at” or if you avoided being “in the wrong place at the wrong time.”
It's like, I think gangs are good. Gangs are when like, people come s together, and I think that's good. You're just trying to find somewhere to hang out. Like they come together and like most people in the gangs, are like people like, not everyone, but most people that comes together, like little boys who don't have a big brother, they kick it with like these people and then they just in a gang, so that's the way they end up there. Or if you don't got a mom or something like that. (It's like another family on the street, a participant interjects). Yeah, it's like another family on the street, so that's why I think that gangs are good, for that reason. The reason that I think gangs are bad is cause there be some stupid gang members that make stupid ass decisions, "Oh, it's all about this. Oh, it's all about that." Just like hatin’ on somebody else, just fuckin’ more beef. I think gangs are good, I just don't like the stupid ass gang bangers.

**DISCUSSION**

The young women in this study fit the profile of adolescent Mexican-American females at high risk for early childbearing. Like many children of Mexican immigrants, the participants’ parents came to the US as labor migrants who settled in low-income, disadvantaged neighborhoods characterized by limited opportunity, gang activity, and community disorganization. The use of mixed-methods in the current study highlights these neighborhood contextual factors and provides some insight into the experiences of these young women within these contexts. Using participant photography in conjunction with focus groups allowed for a richer understanding of the characteristics of places experienced by the participants. Additionally, the photos – in many cases – highlighted different aspects of context than what was discussed in the focus group. For example, while gangs and gang activity were talked about in depth during the focus groups, it was not until the photo-elicitation discussion that participants described their specific relationships and experiences with gang members and gang violence. Additionally, photos elucidated neighborhood context by capturing the transient spaces that participants spent time in, e.g., bus stops, that were not discussed in previous discussions about blocks and turf.

Researchers have questioned whether neighborhood (generally operationalized by zip code) is the most appropriate demarcation of risk for residents, and the findings of this study provide some insight into this concern. Participants consider their block to be their neighborhood, regardless of what zip code they are in. Further, participants do not necessarily view the block as their turf, which has important implications for conceptualizing and measuring contextual risk at the neighborhood-level. Additionally, the transient spaces between home and school or home and turf play an important role in shaping risk as well, for example, the participant who described a salient discrimination experience at the bus stop.

The theme of upward mobility via educational opportunity emerged early on and was discussed by participants throughout the four weeks. Research has found that early motherhood is strongly correlated with teens’ educational expectations (Abrahamse, Morrison, & Waite, 1988; Beutel, 2000; Driscoll, Sugland, Manlove, & Papillo, 2005) and personal career goals (Abma, Martinez, Mosher, & Dawson, 2004; Kirby, 2007; Lammers, Ireland, Resnick, & Blum, 2000). Teens’ perceived lack of opportunities are believed to play a role, either directly (i.e., “There’s no hope for me, I might as well become a mother”), or indirectly, with the absence of opportunity (i.e., a college scholarship or a great job) paving a clear path towards pregnancy
through the lack of better prospects (Geronimus, 2003; SmithBattle, 2007). This research is consistent with findings that Latina teens who drop out of school early are predisposed towards early motherhood when compared to teens who drop out at later ages (Manlove, 1998). The participants in this study described high hopes for attending college and obtaining financial stability for themselves and their families, and it may be that these expectations function as a protective factor against early childbearing. It would be interesting moving forward to see if these expectations continue to be protective, or if they cease to be so as the young women encounter increasing challenges in their educational and employment pursuits. Participants described numerous challenges in their pursuit of upward mobility, and high school graduation was not a certainty for all of the participants, with suspensions and potential expulsions as significant barriers.

Extremely limited educational and vocational opportunities are linked to early childbearing among minority adolescents (Geronimus, 2003; Kendall, Afable-Munsuz, Speizer, Avery, Schmidt, & Santelli, 2005). This may occur because, as one author states, “Teens who grow up in poor neighborhoods with inferior schools and high unemployment rates know that quality education and employment opportunities are limited whether they give birth or not” (SmithBattle, 2007). The findings from this study seem to confirm this, with young women identifying limited opportunity as one reason that several of their friends and family have become pregnant and had children as teens. Since research has shown that teens living in disadvantaged communities—compared to teens in more advantaged areas—have higher rates of sexual activity and pregnancy (Driscoll et al., 2005), future research might benefit from examining the role of opportunity structures at the neighborhood level.

The finding that these participants experience discrimination as part of their various neighborhood contexts is consistent with numerous studies showing that Latino adults and adolescents encounter discrimination frequently, both related to their ethnicity and their immigration status (Fisher, Wallace, & Fenton, 2000; Lauderdale, Wen, Jacobs, & Kandula, 2006). Among Latinos, 83% report that discrimination is a major issue, referencing incidents—similar to those described by participants—of personally mediated racism including name-calling and poor service in restaurants and public shops (Araujo & Borrell, 2006). Although there is a lack of substantial evidence demonstrating the impact of discrimination on Mexican-American adolescents specifically, there is a large body of research showing that among people of color, experiences of mistreatment on the basis of race/ethnicity are extremely harmful to physical and mental health (Clark, Anderson, Clark, & Williams, 1999; Gee, 2002; Krieger, 1999; Stuber, Galea, Ahern, Blaney, & Fuller, 2003; Williams, Neighbors, & Jackson, 2003). Research has further demonstrated that discrimination is linked with poor reproductive health outcomes (Collins, David, Handler, Wall, & Andes, 2004). Given the prominence of this theme among participants, and the fact that perceived discrimination is not only a common experience among Mexican-American adolescents but also an influential one, future research on neighborhood context might consider how these experiences influence vulnerability to the outcome of early childbearing among this population.

Gangs and gang activity were the final theme running through both the focus group and photographic data. Research has shown that adolescent involvement with gangs is associated with risky sexual behaviors, including lower use of condoms (Auerswald, Muth, Brown, Padian, & Ellen, 2006; G. W. Harper & Robinson, 1999; Ohene, Ireland, & Blum, 2004; Voisin, Salazar, Crosby, DiClemente, Yarber, & Staples-Horne, 2004; Wingood, DiClemente, Crosby,
Harrington, Davies, & Hook, 2002). While much of this research has focused on African-American adolescents, other studies have considered the relationship of gang presence to early childbearing and sexual risk among Latino and Mexican-American youth. One study found that among Mexican-Americans pregnancy risk was increased based on the gang involvement of a young woman’s sexual partner (Talashek, Alba, & Patel, 2006). Another study found that among Latina young women, the incidence of pregnancy was higher among those with gang involved partners (Minnis, Moore, Doherty, Rodas, Auerwald, Shiboski et al., 2008). Gang violence further exacerbates the effects of discrimination and limited opportunity structures on these young women. Choosing where to live is a luxury not afforded to most adolescent Mexican-Americans, whose housing options can be constrained based on immigrant status and affordability. Sixty-five percent of Latino immigrants settle in urban neighborhoods characterized by poverty, violence, and instability (C. P. Kaplan et al., 2002), and disorganized communities such as these are a risk factor for teen pregnancy (Kirby, 2007). Thus, the emerging relationship between gang presence and early childbearing could be one additional aspect of neighborhood context for researchers to consider as they as potential risk factors driving risk for this outcome among Mexican-American young women.

The findings presented here should be considered in light of a few limitations. The young women who participated in this study are representative of the population at risk for early childbearing given their ages, ethnicity, immigration status, and area of residence, but this study utilized a small sample size and was based in a specific area. Thus, the findings may be unique to these participants and this setting and generalizability of the results may be limited. However, given that the resulting themes were resonant with existing research highlighting these same contextual factors as relevant in the lives of Mexican-American female adolescents, this limitation may not be a significant concern. Additionally, while the study does make use of mixed-methods in the research design to capture nuanced information on neighborhood context, participants may have felt uncomfortable taking pictures of certain elements of their neighborhood experiences, e.g., violence. Yet in other photography projects using these methods with adolescents, participants have generated very similar images, lending support to the validity of these findings.

Via qualitative and photographic data, this study provides a nuanced understanding of how Mexican-American young women conceptualize and experience their various neighborhood contexts. While the current study does not establish whether the identified factors are associated with or predictive of early childbearing, this research does provide insight into the neighborhood context of one setting where early childbearing rates are extremely high. Additional qualitative or ethnographic work should be done to investigate how specific experiences with these different contextual factors relate to sexual risk taking or pregnancy intentions, and subsequent early childbearing. These findings point to the importance of structural factors in the lives of adolescent Mexican-American young women, and may be used to inform future studies looking at the relationship of neighborhood contextual to early childbearing among this population.
REFERENCES


In Their Voices: Mexican American Young Women Explain Why Neighborhoods Matter for Early Childbearing

INTRODUCTION

Mexican-American adolescents are disproportionately affected by early childbearing: their birth rate of 92.9/1,000 is more than twice the rate for all US adolescents (41.9/1,000), more than three times that of non-Latino Whites (26.6/1,000), and one and half times that of non-Latino Blacks (63.7/1,000) (Martin, Hamilton, Sutton, Ventura, Menacker, Kirmeyer et al., 2009). Public health research on the high rates of early childbearing among this population has focused almost exclusively on the role of cultural values and norms, family influence, and acculturation. This focus on the micro-level continues despite a growing body of research demonstrating that macro-level contextual factors shape risk environments for adolescent sexual activity, pregnancy, and early childbearing.

Numerous studies have demonstrated that neighborhood level characteristics are related to early childbearing. Economic deprivation including concentrated poverty (Browning, Leventhal, & Brooks-Gunn, 2004; Kirby, Coyle, & Gould, 2001), high rates of unemployment (Ku, Sonenstein, & Pleck, 1993), and residence in a ghetto neighborhood (Hogan & Kitagawa, 1985) have all been linked to increased risk for teen childbearing. In addition to these measures of economic context, other neighborhood characteristics including high concentrations of idle youth (Cubbin, Santelli, Brindis, & Braveman, 2005), high levels of community stress (Singh, 1986), and low levels of collective efficacy (Browning et al., 2004; Denner, Kirby, Coyle, & Brindis, 2001; Driscoll, Sugland, Manlove, & Papillo, 2005; Frank, Cerda, & Rendon, 2007; Way, Finch, & Cohen, 2006) have also been shown to increase risk of adolescent sexual behavior and rates of early childbearing. While most of this research has not focused on Mexican-Americans exclusively, these studies have included Latinos and other teens of color.

With regard to Mexican-American young women specifically, the bulk of the research on macro-level factors has been conducted within sociology, where researchers have demonstrated that immigrants’ offspring (i.e., the 2nd generation) are at high risk for early childbearing based on a number of contextual factors. These neighborhood characteristics include limited educational and employment opportunities and the absence of strong co-ethnic ties (Portes, Fernandez-Kelley, & Haller, 2005; Portes & Zhou, 1993; Rumbaut, 2005; Zhou, 1997; Zhou, Lee, Vallejo, Tafoya-Estrada, & Sao, 2008; Zhou & Xiong, 2005).

From this broad set of literature, it is clear that neighborhood factors are related to early childbearing, such that disadvantaged neighborhoods have higher rates than advantaged neighborhoods. But what has not yet been completely clarified is why and how these characteristics create risk environments for this outcome. Does limited opportunity alone shape risk, or is another mechanism at work? In these attempts to elucidate the relationship between neighborhood level factors and teen childbearing, one avenue of inquiry has not yet been explored: asking Mexican-American young women themselves why they think that neighborhoods matter for early childbearing. The experiential knowledge acquired by Mexican-American adolescents through direct encounters in their daily lives is a critically important source of information for researchers as they continue to investigate the role of neighborhood-level factors (Heron, 1996). Community members are the experts on their own lives, and the perceptions and experience of these young women have the potential to shed additional light on
the issue of early childbearing among this population. Thus, this study was developed in order to learn how Mexican-American young women perceive their risk context in contrast to other neighborhoods with much lower rates of early childbearing.

One illustration of differential rates across racial/ethnic populations and neighborhoods is in Alameda County, California. In Alameda County, the teen birth rate is 26.5/1,000, which is lower than the state’s rate of 37.1/1,000 (Constantine & Nevarez, 2008). Yet despite having relatively low rates, particularly when compared to California overall, these rates are still alarming when considering that the birth rate of other western democracies is 9.2/1,000 (Constantine & Nevarez, 2008). Further, when compared to the average teen birth rate in Alameda County, the Latino teen birth rate (the Mexican-American rate is unspecified) is 63.2/1,000, demonstrating a marked disparity (Brown, 2007). Finally, within the county, early childbearing rates range from 2.3/1,000 to 77.6/1,000, with great variation across neighborhoods (Brown, 2008).

METHODS

Study Design

This study used a qualitative, descriptive design incorporating data collected from two focus groups with 16 Mexican-American young women living in Alameda County, California. Alameda County was chosen as a site based on the authors’ familiarity with the county as well as the extreme disparities in early childbearing rates within the county. Focus groups were selected as the optimal data gathering strategy because this format can facilitate the collection of a range of perspectives in a limited amount of time (Kidd & Parshall, 2000). As a result of multiple exchanges occurring between discussants, focus groups participants are often inspired to think of and share perspectives that may not occur to them during a one-on-one interview, thus allowing researchers to obtain a greater breadth of information (Kitzinger, 1994). Finally, there is evidence that focus groups are of some value when working with Latinas from lower socio-economic backgrounds (Madriz, 1998).

In order to demonstrate the differential rates of teen childbearing across Alameda County, researchers developed a county map depicting teen birth rates by zip code, color-coded to demonstrate low, medium, and high rates in addition to areas with concentrated Mexican-origin populations. During each focus group, this map was used as the focal point for discussions, with the Lead Author introducing the map and explaining the data shown on it.

Setting and Participants

Participants were recruited from two community-based organizations (CBOs) within Alameda County. The first CBO was the Community Health Education (CHE) arm of a large community-based clinic - La Clinica de La Raza - that provides extensive health-related services to a diverse community, including a large percentage of the Mexican and Mexican-American population in the county. The second CBO was Girls, Incorporated® of Alameda County, which serves young women from predominately high-risk, underserved areas and is the local affiliate of the national Girls, Inc. organization. These CBOs were selected as recruitment sites due to: (1) their different locations within the county in which this research focuses; (2) their extensive background and linkages with the adolescent Mexican-American community; and (3) their
interest in the research question. In order to secure these CBOs as recruitment sites, the Lead Author contacted the program directors via introduction by a mutual colleague at the Alameda County Public Health Department and explained the purpose of the research study, asking if their organization would be interested in participating.

Mexican-American young women living in zip codes 94603 and 94621, the Alameda County zip codes with the highest rates of teen childbearing – 77.1/1,000 and 77.6/1,000, respectively – were purposely sampled for this study, given their high risk based on race/ethnicity and geographic location. Young women who met the following criteria were recruited: female; Mexican-American; between the ages of 15-17; non-pregnant and non-parenting; and a resident of 94603 or 94621. Since this was the pilot phase of the study, an initial target sample size of 15-20 was sought. Sixteen young women expressed interested and all 16 were deemed eligible to participate and were invited to join.

Procedure

Data was collected via two focus groups with two sets of participants (n=10 and n=6). The purpose of the research study was thoroughly explained to the participants. The Lead Author conducted the focus groups using a guide designed to gather participants’ views on why rates of early childbearing differ across Alameda County neighborhoods, specified by zip codes. The guide included specific questions but relied primarily on semi-structured, open-ended questions that allowed for flexibility based on participants’ responses. Focus group discussions averaged ninety minutes in length. Parental permission was obtained for all participants, and all participants provided verbal and written assent as well. The study was undertaken with ethical approval granted by the UC Berkeley Committee for the Protection of Human Subjects. Participants received a $20 gift card to Target, and dinner was provided at all discussions. Focus group discussions were conducted in a private room at both CBOs.

Analysis

All discussions were digitally recorded, transcribed, and checked for accuracy. Transcribed text was entered into ATLAS.TI, which was used to manage the coded data. After each group discussion, the facilitator listened to the recording to review the session, making notes on observations and keeping a detailed log of reflections and field notes. After transcribing the discussion, the facilitator reviewed the transcriptions multiple times, making additional notes as necessary. The transcriptions of the focus group discussions were used as the data for analysis. A coding scheme was developed using directed content analysis, a technique using “existing theory or research [to] help focus the research questions” (Hsieh & Shannon, 2005, p.1281). Thus, analysis was initially guided by broad concepts developed based on the research objectives and the literature on neighborhood factors and risk for early childbearing. From these key concepts, coding categories were developed and coding began with these pre-determined categories. As coding progressed, data that did not “fit” into these categories were identified and set aside for separate analysis in order to determine whether categories needed refining or new codes needed to be developed. Within each coding category subcategories were developed as necessary. While the coding was not entirely inductive, the analysis was an iterative process, allowing the data to drive the development of codes in addition to using the pre-determined coding structure.
RESULTS

Participants

Sixteen Mexican-American young women ages 15-17 participated in this study. Participants from La Clinica de La Raza (n=10) came from two after-school peer health education programs run by the community health education (CHE) arm of the clinic. Participants from Girls, Inc. (n=6) came from a group called “Advocating Change Together” (ACT), which focuses on community-level change and policy advocacy. All participants were residents of the 94603 or 94621 zip codes in Alameda County and grew up in the Bay area.

Focus-Group Findings

Findings fell naturally into a socio-ecological framework and the results are organized as such. Participants from La Clinica focused predominantly at the micro-level, discussing individual behavior and attitudes, the role of parents, and school conditions. The young women from Girls, Inc. focused more on the macro-level, highlighted community-level factors they believed to be related to early childbearing across Alameda County.

Individual Behavior & Attitudes

The behavior and attitudes of individuals were theorized to be responsible for the differential rates of early childbearing across the distinct zip-codes. One participant said that in the areas characterized by lower rates, people could be “aborting more kids,” suggesting that the differential rates were attributable not to sexual activity or use of contraceptives, but rather the termination of pregnancies. This sentiment was opposed by another young women, who asserted that the higher rates could reflect greater numbers of “freaks” (i.e., sexually promiscuous young women) living in particular places. Disagreeing with these theories, two other participants argued that sexual activity rates did not differ, but that the utilization of birth control, including condoms, varied by area. When asked for their opinion on why people in the areas of the county with higher birth rates did not use birth control or condoms as frequently, one participant responded “it could that they’re both ignorant and don’t care.” One participant, expanding on why participants in one zip code – compared with another – might not care, responded:

More people on this side [areas with high rates] don’t give a fuck. I mean, they don’t care, like in the moment they don’t care. And then on this side [the areas with lower rates], the people might actually stop and be like no, going get one [a condom]!

Participants further explained that based on their experiences and knowledge of the people who lived in the different areas, those teens who live in the low rate areas have more to care about. A few of the young women speculated that in neighborhoods characterized by higher socio-economic status (e.g., the low rate areas), adolescent residents might be more motivated to prevent teen childbearing, thinking that “maybe it’s like the status, they want to keep that status. Like, ‘Everybody sees us as better, so we should keep ourselves as better.'” The participants emphasized that teens living in high rate areas did not have a status to maintain, and ultimately, “just don’t really care…if it happens it happens.”
The Role of Parents

In addition to the attributes of individuals put forth by participants as potential explanations for the differential rates, they also highlighted the role of parents. Participants theorized that across the county, levels of parental involvement differed, leaving teens in different zip codes with varying amounts of oversight. As one participant pointed out, in areas where parents are not as involved, teens are much less supervised:

Probably over here [high rate areas], there’s more freedom. Some of the girls I know that got pregnant were the ones that weren’t going to school and they were at the house with their boyfriends. Most of them, the ones I know.

People just outside out kickin’ it, and all those people [in areas with low rates of early childbearing] are inside with their computers or books, and with their parents. And out here [areas with high rates of early childbearing] it’s like: Where’s the mamas at? Workin’. Where the girls at? Boyfriend’s house or on the street. Where the dangerous parts at? Out here [high rate area]. And over there [low rate area] you can walk out like it’s just nothin’.

Participants were divided in their assessment of why parental involvement might differ across the county. One group of you women shared the view that “there’s more people ignorant there, that don’t talk to their children. Like those communities are trashy, just ghetto.” Other participants agreed with this statement about parents not caring and being inconsistent:

When they [parents] do hear that girls are getting pregnant, they just don’t care because they think “Oh, it’s not my child so I don’t care that they’re getting pregnant,” and when it happens to them they’re like “Oh well, everybody’s getting pregnant.”

Yet several of the other young women said that it was not due to the communities being “ghetto,” or parents being ignorant, but rather because the areas characterized by higher rates are also those places where it is necessary for people to work longer hours:

There are more working class people in those communities, so their parents spend more time working. They care about the children, but they don’t be paying enough attention to them.

Finally, one last group of participants felt that parents played a role by setting an example:

It depends on their parents and if their parents had a kid, and if they see that they’re struggling, they wouldn’t really want it. But if they don’t see someone in their family that had a kid at that age, they might go and have sex and think that they’re not going to have no accident happening. They just use condoms, and they go into it thinking that nothing is going to go wrong.
However, when the Lead Author pointed out that the zip codes with the highest rates of early childbearing were also the areas where many teens were being raised by teen mothers themselves, the participants did not know how to reconcile this theory with that information.

**School Conditions**

The potential differences across county areas in opportunities for teens to participate in after-school activities was put forth as an explanation by one La Clinica participant. She speculated that differential levels of funding for youth enrichment programs might lead to different amounts of free time for teens by neighborhoods, and as a result, different amounts of free time. She agreed with the others that teens with more unsupervised time could be at greater risk for having sex, getting pregnant, and subsequent early childbearing, but her explanation went beyond individual and family level factors:

> It could be that, you know how up there [low rate area], there’s more richer schools or like more programs and (*imitating proud parent’s voice*) “My kid is in the music program”?! It could be that down here [high rate area] they’re cutting so many, like, after school programs that the kids do have more free time, because there isn’t that much to do after school. And like up there the parents always put them in [programs], like (*again imitating proud parent’s voice*) “Oh, he practiced, like, 3 hours on his piano…”

**Neighborhood Characteristics**

Specifically among the participants from Girls, Inc., the racial/ethnic composition of the different zip codes was pointed out immediately. Their initial reaction to the map was to point out that the areas where rates are highest are where the lower-income Mexicans, other Latinos, and Blacks live, and that the areas where rates are lowest are where the higher-income “white people” live. When asked if they were suggesting these demographic distinctions as a cause of the varying rates, they said no but that these areas were the same places where “you see, like, more gangs, like, more problems. There’s more problems going on in those places.” When asked what other problems existed in those areas, participants listed air pollution, factories, graffiti, and a limited economy where most people have “money problems, like, not enough families have enough money.” The group explained that they did not think that these neighborhood issues were causally related to teen childbearing, but that they indicated other things going on in that area, for example, neighborhoods that participants characterized as White were described as “more quiet.” Asked to expand on what “quiet” meant to them, participants explained that these areas “don’t have a lot of graffiti. They’re not ghetto. Not poor.” Other participants shared that:

> When people start doing graffiti around here, it takes the city awhile to remove it. But in White areas, the next day it’s already off.”

The young women further explained that they perceived expeditious graffiti removal to be correlated with the level of power a neighborhood has, as well as being demonstrative of the amount of money and influence that residents have: “They’re able to protest, say what they need.” Ultimately, participants at Girls, Inc. shared the view that areas with lower rates of early childbearing were “more united in getting something done.” While they were not entirely sure of how being united might influence the outcome of early childbearing, they felt certain that the
areas with low rates were similar: “They’re more together- there are more people involved in those places.”

In addition to being characterized as “united,” participants pointed out that in areas with lower rates, residents were of similar educational background and socio-economic status:

People there [areas with lower rates of early childbearing] have higher education, and higher paying jobs. So they have more supplies, like more schools, more programs, and more support from the city.

A couple of the participants described how higher levels of education facilitated residents’ ability to demand governmental resources for improving their neighborhoods and building higher quality schools. They explained that going to school and getting a “higher education” was the way to obtain a “higher paying job,” which in turn would allow a person to live in a united neighborhood with the capacity for obtaining resources to build an organized, powerful community. The young women at Girls, Inc. felt strongly that the different rates of early childbearing in Alameda County correlated with the level of unity across neighborhoods.

Finally, one participant pointed out that teens’ ability to easily access reproductive health services could be related to the differences in rates. At her school there is no wellness center, and she thought that schools with these resources might be located in more affluent neighborhoods in the county:

Some schools don’t have a clinic that gives you condoms or anything like that. And obviously women, at this age, you know, like most of them are sexually active. And if they have to go all the way to Planned Parenthood in Eastmont…well, if it’s just there in the school and they can walk to it, they’ll go there.

DISCUSSION

These findings highlight the challenge of determining how and why neighborhoods matter for the health of residents. The question of why early childbearing rates differ across populations and places is not easy to answer. Among Mexican-American young women, multiple factors have been found to create risk for this outcome, and the participants in this study discussed several of these ranging from the individual to neighborhood levels.

The La Clinica participants focused at the micro level, hypothesizing that young women’s behaviors and attitudes are partially responsible for the high rates of early childbearing in their neighborhoods. The young women first surmised that differential abortion or sexual activity rates could be to blame for the varying rates of early childbearing, but while such differences might account for some of the variation, it cannot explain it all. Participants further speculated that not caring about one’s life or the consequences of one’s actions could drive the differential rates, and this suggestion also has evidence to support it. Limited opportunities for education and employment create a situation where young women from disadvantaged neighborhoods are less likely to use contraception and are more likely to carry a pregnancy full-term (Geronimus, 2003; Kendall, Afable-Munsuz, Speizer, Avery, Schmidt, & Santelli, 2005; SmithBattle, 2007). Additionally, research has shown that early childbearing is strongly influenced by personal factors including educational and career goals, as well as perceived self-
efficacy for remaining non-pregnant (Abma, Martinez, Mosher, & Dawson, 2004; Kirby, 2007; Lammers, Ireland, Resnick, & Blum, 2000).

The young women also pointed to the role of parents, speculating that limited parental involvement and oversight could be part of the picture, and again, these intuitive theories are supported by the literature. Family structure is related to early childbearing, such that teens from single-parent homes are at higher risk for having sex (Raine, Jenkins, Aarons, Woodward, Fairfax, El-Khorazaty et al., 1999; Singh & Darroch, 1999; Upchurch, Aneshensel, Sucoff, & Levy-Storms, 1999). Participants’ assertion that single parents – due to their work load – have less time to supervise their teens is one potential explanation for this relationship.

However, while these explanations point to the individual and family levels, they are also linked to structural factors. For example, the participants thought early childbearing could be the result of teens who “don’t give a f*ck” and parents not supervising their teens. But while they are putting forth a theory about how individual attitudes influence behavior and subsequent high rates of early childbearing, they are also illustrating the fact that teens in these neighborhoods have limited educational and employment opportunities, and as a result may not be motivated to prevent pregnancy. Additionally, they are highlighting a reality that within these neighborhoods, parents are often required to work evening and weekend hours, this limited the amount of time they can spend with their teenage children.

Among the participants from Girls, Inc., the focus was more solidly on macro-level factors including poverty, neighborhood disadvantage, community-level efficacy, and access to services, all of which have been studied – to varying degrees – for their relationship to early childbearing. Disadvantages across neighborhoods based on the presence of these factors has been shown to create a risk environment for this outcome (Frank et al., 2007; Kirby et al., 2001; Way et al., 2006). These neighborhood characteristics were all identified as important by participants, and as the young women speculated, teens living in disadvantaged neighborhoods-compared to teens in more advantaged areas- have higher rates of sexual activity and pregnancy(Kirby, 2007). One final macro-level issue discussed by Girls, Inc. participants is the important role that access to birth control and reproductive health services plays in helping teens prevent pregnancy and childbearing. Alameda County is one of the highest unmet needs counties in California, meaning that more than half of all adolescents in need of reproductive health services did not access them (Chabot, Lewis, & Thiel de Bocanegra, 2009). In pointing out this issue the young women confirmed that access is indeed a challenge experienced by adolescents in particular neighborhoods.

It is interesting that the different foci of the two groups reflect the distinct streams of research investigating risk for early childbearing among Mexican-American young women in the literature. On the one hand, there is a large body of research demonstrating the role that proximal factors (e.g. individual values, parental influence) play in shaping young women’s risk for early childbearing. On the other hand, there is research showing that more distal factors matter as well, and that neighborhood context can create risk environments for this outcome. One difference with these findings is that in the literature on the micro-level factors influencing Mexican-American young women, the focus is on acculturation, values, and cultural norms, but the participants in this study did not mentioned these at all. Further, it is notable that the two groups of participants were split according to these perspectives. One group, whose participants are active in advocacy work and community change efforts, immediately pointed out the influence of
structural factors on the rates of early childbearing in different neighborhoods. The other group of participants, who were recruited from a peer heath education project focused on behavior change, highlighted the individual and family level characteristics they believed were driving the differential rates. Due to the small sample size of this study, no conclusions can be reached regarding the potential role that their respective programs may have had in shaping their views. Future studies might consider the possible influence that recruitment site and programmatic orientation play with regards to participants’ perspectives.

Although this was a small pilot study, the findings point to some potentially important implications. First, across both focus groups, the results validate prior research with the experiential knowledge of community members. This finding is promising, and may demonstrate that researchers are correctly focusing on issues that are salient for Mexican-American young women with regards to the outcome of early childbearing. Second, these findings point to the potential influence of one’s theoretical perspective in shaping their views on factors related to early childbearing. While this was not the focus of this research, and there was no direct investigation of this theory, it is worth noting that the two groups of young women were “different” only in the programs they came from.

Finally, these findings further underscore the importance of structural factors in driving the disproportionate rates of early childbearing among this population. While some researchers are studying the impact of macro-level variables on this outcome, much of the research on Mexican-American early childbearing focuses on the micro-level, examining cultural values, acculturation, or other Mexican or Latino-specific factors. Noticeably, none of these factors were put forth as potential explanations by the participants. Taken together, these results imply that the answer to differential rates in early childbearing across populations and places may lie with community members themselves. Public health researchers would be advised to listen to them.
REFERENCES


CONCLUSION

This dissertation sought to: (1) emphasize that a consideration of context be further incorporated into public health investigations of the high rates of early childbearing among Mexican-Americans; (2) illustrate how Mexican-American young women experience context as a risk for early childbearing, specifically at the neighborhood-level; and (3) determine how Mexican-American young women themselves conceptualize contextual risk as a driver of the disparate rates of early childbearing among their population. I achieved these goals by conducting three inter-related studies, which I summarize below.

The first study, a systematic literature review and theoretical critique of acculturation and early childbearing among Mexican-American young women, found no clear relationship exists between this variable and this outcome. Sampling, measurement, insufficient theoretical framing, and extremely limited investigation of contextual factors are discussed as challenges for establishing this relationship, and I suggest that these areas be improved in future research. Further, I refer public health researchers to the sociological literature, where early childbearing among this population is viewed as an indicator of adverse contextual factors encountered by the children of immigrants. One theoretical framework from this literature, Segmented Assimilation Theory, offers potential for public health investigations of this outcome by including a consideration of context with regards to understanding risk and risk environments of early childbearing among 2nd generation Mexican-American young women.

The second study utilized mixed methods to determine how Mexican-American young women experienced neighborhood context and how it creates risk for early childbearing. Using qualitative methods along with participant photography and photo elicitation, I found that the elements of neighborhoods experienced by these young women (i.e., limited educational opportunities, racism and discrimination, and gang violence) are all known risk factors for early childbearing. I also found that neighborhood, defined by the young women themselves, may be as small as one’s block, or may include places entirely separate from where one lives. In addition to demonstrating that participatory visual methods can generate important information from neighborhood residents, this study emphasizes the importance of considering neighborhood level characteristics as contextual factors with the potential to create risk for early childbearing among Mexican-American young women.

The third and final study was a small pilot using qualitative methods to learn what Mexican-American young women themselves see as risks for early childbearing across neighborhoods in Alameda County, California. The theories put forth by the young women were supported by existing literature on structural factors as risks for early childbearing, further demonstrating that what has been found to create risk for early childbearing among adolescents in general should be considered among this specific population. This study also points to the important role for neighborhood participants in determining how context matters for health.

Across these three studies, the findings are clear: contextual factors should be considered when investigating the high rates of early childbearing among Mexican-Americans, particularly at the neighborhood level. Additionally, based on the results of the second and third studies, there are several specific aspects of context that appear to be salient for these young women, and these factors are supported by existing literature. Taken together, the studies in this dissertation make an additional contribution to the growing body of research pointing to the importance of
contextual factors as they relate to health. For public health researchers, there are clear implications for conducting research attempting to elucidate the disproportionately high rates of early childbearing among Mexican-American adolescents:

1. **Consider context.** Whether assessing neighborhood-level factors, block-specific characteristics, or some other measures of place, examining the role of contextual factors may get us further in understanding why rates are so high among this population.

2. **Ground inquiry in theoretical frameworks that include a focus on context.** Much of the public health work looking into early childbearing among Mexican-Americans is atheoretical. Theories emphasizing context, e.g., the theory of segmented assimilation, can help to guide researchers in the selection of measures and the interpretation of findings, and can provide direction in the design of interventions.

3. **Consider the benefits of visual methods for enhancing our understanding of place.** Visual methods capture aspects of place that are difficult to determine otherwise, and when used in conjunction with qualitative methods can inspire participants to provide richer descriptions of their experiences.

4. **Rely on the experiential knowledge of neighborhood residents.** Neighborhood residents – including the young women, their families, friends, teachers, and providers, to name a few – all have valuable knowledge and perceptions of the places they live and interact. This knowledge is invaluable for researchers seeking to understand and assess contextual factors and how they may relate to early childbearing.

While this dissertation study does not establish a causal link between place and early childbearing among Mexican-American young women, it does highlight the potential for exploring and defining neighborhood context in causal models moving forward. This emphasis on structure is significant, since people are not separate from the environments in which they live. Going beyond an examination of individual-level factors that create risk for early childbearing, a consideration of context aids in the development of a more accurate conceptual model that expands our understanding of how this risk is created and maintained. Additionally, a consideration of how health is impacted by the contexts in which people live is critically important because it focuses the attention of researchers, interventionists, and policy-makers on the fundamental causes of adverse health outcomes, moving us away from crafting merely ameliorative efforts. Knowing the drivers of early childbearing among Mexican-American young women – across all levels – enhances the public health community’s ability to respond to these disparities in an effective and thorough way. Given the extremely disproportionate rates impacting this population, we cannot afford to ignore the evidence with regards to the health of Mexican-American young women: place matters.