Family Risk and Adolescent Sexual Risk Taking:

Testing Academic and Peer Mediation

by

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ABSTRACT

Sexual risk taking is prevalent in adolescence, particularly among Latino teens, and can have serious consequences in the form of contraction of STIs, HIV, and increased risk of unintended pregnancy. Family contexts characterized by conflict and lack of support are antecedents of adolescent sexual risk taking, but evidence elucidating the mechanisms underlying this association is lacking. The current study sought to test two potential pathways to sexual risk taking within the framework of social developmental theory, among a sample of 189 Mexican origin adolescents and their caregivers interviewed in the 7th, 8th, and 12th grades. Structural equation modeling was utilized to examine pathways from 7th grade family risk to age of sexual initiation, number of lifetime sexual partners, and condom nonuse reported in the 12th grade. Deviant peer affiliations and academic engagement at 8th grade were tested as mediators of this relationship for boys and girls. Results confirm the importance of the family context, with family risk exerting direct effects on the number of lifetime sexual partners for both genders, and on age of sexual initiation for females only. Deviant peer affiliations serve as a mediator of family risk for males, but not females. When included in a model alongside deviant peers, academic engagement does not play the hypothesized mediating role between family risk and any of the sexual risk outcomes. Future research ought to consider additional mediators that better account for the relation between family risk and sexual risk taking among females.
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Introduction

Engagement in risky sexual behaviors during adolescence is dangerously prevalent among Latino teens. Latino adolescents have sexual intercourse at higher rates, as evidenced by a national survey of students demonstrating that 49.1% of Latinos in grades 9-12 had had sexual intercourse compared to 42% of their white peers (CDC, 2011b). These elevated rates of sexual activity are accompanied by substantial contraction of sexually transmitted infections (STIs). Hispanic adolescents contract chlamydia, gonorrhea, and syphilis significantly more often than their white age mates, though less often than non-Hispanic black teens (CDC, 2011c). Among all racial/ethnic groups, Latino adolescents have the second highest diagnosis rate for HIV and AIDS (CDC, 2011a). Additionally, Latino teens have the highest birth rates of all racial/ethnic groups, showing the smallest declines in birth rates in the past ten years (Ryan, Franzetta, & Manlove, 2005). Pubertal changes in the adolescent brain that result in increased preference for risk make this developmental period all the more important in the study of sexual risk taking. There is still much to learn about the developmental patterns and pathways leading to this elevated prevalence of risky sexual behavior in Latino teens.

There exist certain family contexts that put children at risk for later behavioral, mental, and physical health problems, including risk taking in adolescence. These “risky families” are characterized by cold, unsupportive, neglectful relationships and atmospheres of conflict and aggression (Repetti, Taylor, & Seeman, 2002). Children from risky families with these characteristics
differentially engage in health-threatening behaviors like smoking, drug use, alcohol abuse, and sexual promiscuity. It is important to understand the mechanisms through which familial risk exerts its effects on sexual risk taking behaviors.

The social development model (Catalano & Hawkins, 1996) provides a useful framework for understanding the cascading pathways that may underlie risky sexual behaviors in adolescence. Social developmental theory combines the percepts of control theory (Gottfredson & Hirschi, 1990), social learning theory (Akers, 1985; Akers, Krogn, Lonza-Haduce, & Radosevich, 1979; Bandura & Walters, 1963), and differential association theory (Matsueda, 1988; Sutherland, Cressey, & Luckenbill, 1992), yielding a model that addresses causes of delinquent behavior, how these patterns of behavior are extinguished or maintained, and how these causal paths can exist both for prosocial and antisocial behaviors. The social development model posits that individuals become bonded over time to social units which are often defined by close relationships. Bonding to prosocial institutions reinforces socially accepted behaviors, while relationships with antisocial people can reinforce behaviors that are less accepted by mainstream society. In the current study, the family is seen as the first social unit with which children have contact; if parents are harsh, unsupportive, and there is a lot of conflict, the child will be less likely to form a strong prosocial bond with the family. A lack of bonding to family can reduce prosocial bonding and commitments in other domains, like school and peer groups, which in turn can create a context in which adolescents are more vulnerable to sexual risk taking.
The present study focuses on the mediational roles of delinquent peers and academic engagement. Peer affiliations are widely accepted as a proximal mediator linking family influences to adolescent risk taking. Parent and peer factors seem to be related in a cascading pattern across development, wherein early parent factors influence peer associations, and vice versa, with peer factors finally operating as the strongest predictors of adolescent risk-taking (Dodge, Malone, Lansford, Miller, Pettit, & Bates, 2009). While academic engagement has not been tested as a mediator of family risk on risky sexual behavior, it fits well into a social developmental framework and its hypothesized mediational role has informed prevention efforts in Hispanic populations (Coatsworth, Pantin, & Szapocznik, 2002; Gonzales et al., 2012). The current study aims to better elucidate the pathways between family risk and sexual risk behavior, testing whether deviant peer relationships and academic engagement in the eighth grade mediate relationships between seventh grade family context and twelfth grade sexual risk taking. The model to be tested is shown in Figure 1 in which sexual risk taking is conceptualized as age of sexual initiation, number of lifetime partners, and condom non-use.

**Family Risk Factors**

In the present study, the risky family context is conceptualized as a composite of harsh parenting, family conflict, parent-child conflict, and lack of parental acceptance. The combination of harsh parenting, family conflict, and parent-child conflict taps the harsh, aggressive component of the risky family environment and low scores on parental acceptance get at the cold/unsupportive
Figure 1. Conceptual Model

12th Grade (T3) Sexual Risk Behavior (Number of partners, age of initiation, condom use)

8th grade (T2) Academic Engagement

7th grade (T1) Family Risk

8th grade (T2) Overall Peer Delinquency
portion of a risky family context that was shown to be so detrimental to health outcomes in Repetti and colleagues’ (2002) extensive review. From a social development framework, these family characteristics produce a context that weakens prosocial bonding within the family and, in turn, within other social contexts such as with peers and in school.

Prior research supports linkages between each of the family risk indicators shown in Figure 1 and risky sexual behavior. For example, Biglan and colleagues (1990) found that risky sexual behaviors were significantly related to family availability, coercive exchanges between parents and child, parent monitoring, and parent support. Parent-family connectedness (a combination of closeness, satisfaction, and warmth between parent and child) is predictive of age at sexual debut (Resnick et al, 1997) and family warmth has been shown to predict fewer sexual partners across gender, racial, and ethnic groups (Kan, Cheng, Landale, & McHale, 2010). Maternal support has been found to influence daughters’ age at sexual debut and the likelihood that daughters will experience multiple pregnancies during adolescence (Fox, 1980; Fox & Inazu, 1980; Gispert, Brinich, Wheeler, & Krieger, 1984), while those adolescents who take more sexual risks also rate their parents as less supportive (Luster & Small, 1994). Miller (2002) similarly concluded that parent-child closeness or connectedness decreased the likelihood of child pregnancy. In research with Mexican American adolescents, maternal support predicts less risky sexual behavior (Trejos-Castillo & Vazsonyi, 2009) and maternal harsh parenting predicts early age initiation of sexual behavior (German, 2009 ). Family conflict scores have been shown to be
statistically significant predictors of high risk sexual behavior (Doljanac & Zimmerman, 1998), including in a study of Mexican American adolescents (Tschann, Flores, VanOss Marin, Pasch, Baisch, & Wibbelsman, 2002).

**Academic Engagement as Mediator**

The social development model emphasizes the importance of socialization within the family context in childhood and early adolescence, but acknowledges that this specific context may decrease in importance with age (Catalano & Hawkins, 1996). The influence of other prosocial institutions increases with age, with school-related variables predictive of later delinquent outcomes beginning in middle childhood and extending throughout adolescence, and the peer context greatly increasing in importance in adolescence (Costanzo & Shaw, 1966; Gardner & Steinberg, 2005; Hawkins, Catalano, & Miller, 1992; Steinberg & Monahan, 2007; Steinberg & Silverberg, 1986). While the influence of family, peers, and school factors have been examined at different time points throughout development (Fleming, Catalano, Haggerty, & Abbott, 2010) causal models of their interrelationships and predictive power have rarely been tested. From the perspective of the social development model, lack of investment or bonding to school can be seen as a mediator of earlier risks. Lack of prosocial bonding to family can influence the likelihood that a student will bond with the next prosocial institution they come into contact with: schools. This failure to invest in school can in turn influence behavior such that children who were unable to bond to schools and family see fewer costs to engaging in socially unacceptable behavior like early and risky sex.
Across several studies variables related to academic engagement have been linked to sexual risk taking (Costa, Jessor, Donovan & Fotenberg, 1995; Resnick et al., 1997; Scott-Jones & White, 1990; Zimmerman, Sprecher, Langer, & Holloway, 1995;). Constructs akin to academic engagement have also been predicted by parental warmth and affection and parenting style (Gray & Steinberg, 1999; Leung & Kwan, 1998; Pellegrina, García-Linares, & Casanova, 2003). Taken together, the evidence seems to suggest that academic engagement may serve as a mediator between early family-level risk and later risk taking behavior.

School attachment has specifically been found to be related to sexual risk outcomes. In one study, perceived school connectedness was found to be significantly related to age at first intercourse in a national survey of 7-12 graders (Resnick et al., 1997). School connectedness has even been shown to buffer the negative effects of poor family relations on later adolescent conduct problems (Loukas, Roalson, & Herrera, 2010). In a study of an intervention intended to increase bonding to school and academic success in a sample of multiethnic urban children, the treatment group had fewer students that reported engaging in sexual intercourse and having multiple sex partners than a comparison control group (Hawkins, Catalano, Kosterman, Abbot, & Hill, 1999). At follow up at age 18, the treatment group participants reported stronger commitment and attachment to school. While it cannot be proven that the increase in school attachment was the active ingredient in the treatment, these results do suggest that perhaps attachment to the school setting plays a role in later risky behavior.
**Delinquent Peers as Mediator**

Adolescence is a time when susceptibility to peer influences are elevated, and teens are increasingly likely to conform to their peers’ attitudes and behaviors (Costanzo & Shaw, 1966; Gardner & Steinberg, 2005; Steinberg & Monahan, 2007; Steinberg & Silverberg, 1986). Susceptibility to peer influence persists across the lifespan, but is especially strong during the teenage years, as evidenced in an innovative study of behavioral, computer-based risk, where individuals of all ages took more risks when their peers were present, but adolescents were even more influenced by the presence of a peer than were adults (Gardner & Steinberg, 2005). Within the framework of social development theory, the increased importance of peers during adolescence has implications for prosocial and antisocial bonding. If a teen’s peers are engaged in prosocial activities and behaviors, he or she will be more likely to engage in positive behaviors. If a teen’s friends are largely engaged in deviant behaviors, he or she will likely be reinforced to engage in antisocial behaviors.

Evidence supports the social development model’s hypothesis that having friends who engage in delinquent behavior is an important predictor of later adolescent risk taking. In terms of sexual risk taking, deviant peer affiliations as early as the fourth grade have predicted sexual initiation by the ninth grade (Capaldi, 1991). In one study, pubertal status, externalizing ratings, delinquency, substance use, parental monitoring, and peer delinquency were all found to be univariate predictors of age at first sexual intercourse, but deviant-peer involvement was the sole predictor in the multivariate analysis (French &
Dishion, 2003). Biglan and colleagues (1990) concluded that friends’ problem behavior and drinking significantly correlated with sexual risk behaviors, a finding that was later replicated in a more diverse sample (Doljanac & Zimmerman, 1998). In another multiethnic study, the results suggested that negative peer group characteristics like delinquent behavior and substance use were related to sexual activity in adolescents from all ethnic groups (Perkins, Luster, Villaruel, & Small, 1998). Qualitative data confirm this association; Latina respondents participating in focus groups on HIV/AIDS risk behavior in Latino communities often cited a culture of risky behaviors as one of the biggest problems in their communities; drug use, gang involvement, dropout, and promiscuity were all seen as interrelated and affected by the need for peer acceptance and fear of non-conformity (Talashek, Peragallo, Norr, & Dancy, 2004).

Family and peer factors are interrelated predictors of later sexual risk taking, with associations with deviant peers often serving as the most proximal mediator of adolescent risk taking. There is evidence both for the link between parenting quality and peer delinquency as well as a link between peer factors and sexual risk behavior (Crockett, Rafaelli, & Shen, 2006; Simons, Chao, Conger, & Elder, 2001). This role of peers as potential mediator is evidenced in a cross sectional study in which parental/child coercive interactions were, along with parental monitoring, related to peer deviance, which was in turn highly related to teen sexual risk taking (Metzler, Noell, Biglan, Ary, & Smolkowski, 1994). In a longitudinal analysis, early family conflict significantly predicted family
involvement at the same wave, which subsequently predicted later inadequate parental monitoring. Inadequate parental monitoring had a main effect on later teen problem behavior (including high risk sex and substance use) as well as an effect on peer deviance, which subsequently predicted problem behavior (Ary, Duncan, Duncan, & Hops, 1999). This evidence suggests that one of the main pathways through which risky families exert their influences is peer deviance.

**Acculturation**

Much research has been conducted linking acculturation, as conceptualized as an affiliation with the host country’s native culture, to sexual risk behavior. A pattern that emerges in the literature seems to be that higher acculturation is related to greater risk taking. One study has found that Mexican-Americans born in Mexico reported less frequent intercourse and later sexual initiation than Mexican-Americans born in the US (Adam, McGuire, Walsh, Basta, & LeCroy, 2005). Hispanic teens were on average more likely to initiate sex earlier than white teens, with highly acculturated Hispanic teens having the earliest initiation of all, and the least acculturated Hispanic teens initiating sex latest. Similarly, a recent study found that more acculturated Latinas who spoke English at home were more likely to have STDs and to exhibit sexual risk behaviors than Latinas who were foreign-born and did not use English at home (Lee & Hahm, 2010). Highly acculturated Hispanic women have also reported a higher number of lifetime sexual partners than less-acculturated women (Sabogal, Perez-Stable, Otero-Sabogal, & Hiatt, 1995). Nativity may be related to sexual risk behaviors in that those born in the US tend to be more likely to engage in
sexual activity than those born abroad (Ebin et al., 2001; Jimenez, Potts, & Jimenez, 2002). There is some evidence that suggests that perhaps the opposite is true. Hines and Caetano (1998) found that less acculturated Hispanic men and women were more likely to engage in risky sexual behavior than more acculturated Hispanic men and women. Similarly, less-acculturated Hispanic men reported a younger age for first sexual intercourse and a lower frequency of condom use than more highly acculturated Hispanic men.

The real answer may not be as clear cut as the studies above suggest. In a literature review, Afable-Munsuz and Brindis (2006) concluded that of the ten studies they found examining acculturation and sexual initiation, eight studies concluded that higher acculturation was related to earlier sexual initiation. They also found that acculturation was also associated with more condom use. So, while higher acculturation carries the risks of initiating sex earlier it can also be protective in that contraceptive use is higher; whether or not acculturation is linked to risky sexual behavior depends on how you operationalize sexual risk. A longitudinal study of 1614 Hispanic adolescents is a good example of this pattern, finding that fewer first generation adolescents transitioned to sexual intercourse before age 18 than second or third generation teens and fewer first and second generation sexually active teens used contraceptives consistently at age 17 than third-generation teens (McDonald, Manlove, & Ikramullah, 2009). Earlier generation and Spanish language were associated with delayed transition to first sex as well as less than consistent use of contraception whereas higher acculturation related to more consistent contraceptive use and increased sexual
activity. Nativity also appears to play a *moderating* role. Among recently immigrated Mexican and Cuban youth, teens from English speaking homes (a common indicator of acculturation) have been shown to be less likely to be sexually active than those from Spanish speaking homes (Guilamo-Ramos, Jaccard, Pena, & Goldberg, 2005). For youth born in the U.S (or who had resided here for more than 12 years) those from Spanish speaking homes were less likely to be sexually active, and those from English speaking homes were more likely.

All told, the evidence tying acculturative status to sexual risk taking behavior suggests that there are meaningful relationships, but that those relationships might depend on what kind of sexual risk behavior is being utilized. Due to its ties to sexual risk taking, acculturation is included as a covariate.

**Measuring Sexual Risk Behavior**

“Sexual risk taking” is difficult to operationalize as a single measure or outcome variable, especially in a Mexican American sample where different acculturation levels often result in different sexual risk outcomes. It is often best to consider different measures of risk independently, considering the likelihood that condom use may operate independently of number of partners or age of sexual initiation. One must also consider that, at a certain age, engaging in sexual activities is normative and can be seen as a part of the transition to adulthood. Early sexual initiation, however, is often seen as being a risk factor for a number of reasons. Young adolescents have been shown to use contraception less consistently, have sex with more frequency, and thus put themselves at greater risk for unwanted pregnancy and sexually transmitted infections (STIs) and
HIV/AIDS than older adolescents (Ericksen & Trocki, 1992). Additionally, adolescents are more likely than adults to have multiple sexual partners, have more high risk partners, and fail to use any form of protection (Leigh, Temple, & Trocki, 1993; Millstein & Moscicki, 1995).

Consistency of condom use and number of sexual partners are also both valid measures of sexual risk, since failure to use latex contraception puts teens at higher risk for unwanted pregnancy or STIs/AIDS, while a higher number of partners increases the chances that a teen can be exposed to an STI or HIV/AIDS. Latinas are a special risk group, more likely to contract HIV/AIDS from heterosexual contact than males Latinos (CDC, 2011a) despite having few traditional risk factors from HIV/AIDS contraction like multiple partners, incidence of STD, or drug or alcohol use (Rapkin & Erickson, 1990). Interestingly, in a study assessing Latinos’ number of partners within the last year, only 5% of females (both married and unmarried) reported having sex with more than one partner, while 60% of unmarried and 18% of married males reported more than one partner (Castañeda, 2000). In a separate study of married and cohabitating women living in Mexico City, 15% of men reported having extra relational sex during the past year, but only 9% of men having extra relational sex reported using a condom at their last intercourse, and 80% perceived no HIV risk (Purlewitz, Isasola-Licea, & Gortmaker, 2001). This sort of evidence indicates that much of Latinas’ elevated risk may be due to the risky behaviors their male sexual partners engage in. It is especially important to consider various indicators of sexual risk in cases such as this, where a composite measure that might
categorize condom nonuse within a “monogamous” relationship as relatively safe would ignore the risk that a current partner’s infidelity or past promiscuity carries.

The Present Study

The present study examines to what extent academic engagement and peer delinquency mediate relations between family level risk and three measures of sexual risk taking: age of first intercourse, number of lifetime partners, and consistency of condom use. This study contributes significantly to the body of literature on teen sexual risk taking in several important ways. First, it provides an important opportunity to study the mechanisms underlying sexual risk taking among Mexican American adolescents, a population at elevated risk for a variety of negative health outcomes like teenage pregnancy and contraction of an STI. Secondly, many studies of adolescent sexual risk taking are cross sectional, or focus narrowly on family or peer influences. This study integrates multiple elements that are considered important within the family, peer, and school contexts, and uses longitudinal data to allow stronger causal inferences. Lastly, the present study has implications for prevention. Much of the research on adolescent sexual risk taking suggests that sex education programs (both abstinence and abstinence plus) have inconsistent and short-lived effects on many measures of teen sexual risk taking (see Bennet, & Assefi, 2005 and Silva, 2002 for reviews). Steinberg (2008) proposes that, rather than targeting risky behaviors themselves, a better way of preventing dangerous adolescent risk taking behaviors (including risky sex) is to better understand the contexts in which adolescents develop their self-regulatory capacities. Here a better understanding of how
family context, peer associations, and academic engagement are related to risky sexual behavior can help inform prevention efforts about where intervention might be most successful.

**Hypotheses**

The current study tests a mediation model in which academic engagement and deviant peer association in 9th grade (T2) are significant mediators that account for the link between 7th grade (T1) family risk and 12th grade (T3) sexual risk behavior. The specific model tested is shown in Figure 2. Specific hypotheses were:

1. Family risk at T1 would predict decreased academic engagement and increased deviant peer affiliation at T2, controlling for T1 levels of academic engagement and deviant peer affiliation.

2. Academic engagement at T2 would predict less risky sexual behavior at T3 and would mediate the effects of T1 family risk on T3 sexual risk.

3. Delinquent peers at T2 would predict increased sexual risk and would mediate the effects of T1 family risk on T3 sexual risk.
Figure 2. Statistical Model
Methods

Participants

The sample for the current study is part of a larger group of 596 seventh grade MO adolescents initially recruited for the efficacy trial of *Bridges to High School/Puentes a la Secundaria*, a prevention program designed to reduce or prevent mental health problems and school dropout among Mexican origin adolescents. Only the 189 adolescents randomized to the control group were included in the current study. Missing data was handled using Full Information Maximum Likelihood (FIML) estimation, a method that uses all available observations to provide unbiased estimates of model parameters in the presence of missing data.

At the time of the initial interview, adolescents in the current study had a mean age of 12.29 years (range 11-14). Females comprised 54.0% ($n = 102$) of the sample. Only 19.6% ($n = 37$) of the adolescents were born in Mexico, the rest were born in the U.S. In contrast, most mothers (63.5%) and fathers (71.6%) were born in Mexico. Among parents who were not born in the U.S., mothers on average have lived in the U.S. for a little less than 15 years, whereas fathers on average have lived in the U.S. for approximately 19 years. Mothers’ mean education level was 9.6 years ($SD = 3.8$); 61.1% did not graduate high school; 16.5% were high school graduates, 19.2% had some college or vocational school experience, 3.2% held vocational, associate, college, or advanced degrees. Median household income was $33,750. The majority (85.7%) of the adolescents lived in two-parent homes.
The mean age of the 144 adolescents interviewed at T3 was 17.49. At T3, 81 adolescents reported having a current romantic partner, while 114 reported having had a romantic partner within the last year. The mean length of the adolescents’ current or most serious past year relationship was 14.79 months, with teens reporting relationships that ranged from less than a month to a maximum of 5 years. None of the adolescent participants reported being legally married at T3, though 5 reported living with a partner for 6 months or longer, 3 reported living with their partner for less than 6 months, and 1 reported being divorced. The remaining 135 adolescents were never married and reported not currently living with a romantic partner. 11 adolescents reported having 1 living biological child, and 1 reported having 2 living biological children. Of the 146 adolescents for whom information on school dropout was available, 24 (16.4%) had dropped out of high school at T3.

Procedure

MO seventh grade students were randomly selected and recruited from the school rosters of four predominantly Latino middle schools in a Southwestern U.S. metropolitan area in separate cohorts over three years. These schools primarily served low-income communities as determined by the percentage of students eligible for free lunches (80%). Parents of students who were identified as of Mexican origin were sent a letter from the school describing the intervention program and research study, then contacted by phone to determine interest and eligibility. The inclusion criteria required that the adolescent and at least one caregiver be of Mexican descent, and the adolescent and at least one caregiver
would be able and willing to participate in the program in the same language (English or Spanish). The families had to agree to be randomly assigned to either a one-session control group or nine-week prevention program. Of eligible families, 35% refused to participate and 3% were lost due to mobility, leaving 596 (62%) families that enrolled in the study and completed the initial interview.

Trained interviewers facilitated the informed consent process in the adolescent’s home. Consent and assent forms written in simple language were provided in English or Spanish for parents and adolescents to follow along while interviewers read the information aloud. Parent(s) signed consent and adolescents signed assent forms prior to the interview. Interviewers read questions and potential responses aloud from laptop computers and used response cards that contained the response choices to accommodate various literacy levels and facilitate comprehension. Adolescents received $30 for completing the interview. The initial T1 interview was conducted when the adolescents were in the 7th grade. The Time 2 interview was conducted more than a year later when the children were in the 8th grade, while the Time 3 interview was conducted when the children were approximately 18 years old (when most of the students would have been in the 12th grade). All study procedures were approved by the Institutional Review Board at the investigators’ academic institution.

**Measures**

The interviews included a variety of measures that focused on cultural orientation, school-related variables, and family dynamics. Previously validated translated versions of the measures were used when available, and for those
measures that had not been previously validated in Spanish, questionnaires were translated and back translated by fluent Spanish and English speakers as recommended by Foster and Martinez (1995). With the exception of the Mexican and Anglo orientation subscales from the ARSMA-II (Cuellar, Arnold, & Maldonado, 1995), all scales included in the current study and described below were investigated for factorial invariance in relation to language of the interview (English or Spanish). To test for invariance, a sequence of nested multiple-group CFA models were fit to the pretest item data in each scale, using Mplus 3.1 (Muthén & Muthén, 1998). The models that were examined represented successively more stringent levels of invariance: configural, metric, strong, and strict (Millsap & Meredith, 2007). Conclusions about fit were based on both global (chi-square, RMSEA, SRMR, CFI) and local (residuals) fit information. When items did not fit the strong invariance model, degree of misfit was investigated. Items were removed if they showed substantial group differences in loadings, intercepts, or both. These procedures resulted in a complete set of scales that each met the requirements for strong invariance in relation to interview language. The ARSMA-II subscales used to assess Anglo orientation and Mexican orientation were not examined in this way because these scales are heavily based on language and cannot be expected to meet the above criteria. However, the ARSMA-II scales demonstrate adequate internal reliability in English and Spanish (reliabilities for all measures can be found in Table 1).

**Risky family context.** Risky family context was conceptualized as a composite variable of several identified elements of family risk. For adolescent
report, the Risky Family composite was comprised of adolescents’ report on four scales: harsh parenting, family conflict, parent child conflict, and parental acceptance (reverse coded). For measures on which the adolescent was asked to report on each parent individually, the adolescent report on his or her primary caregiver (regardless of caregiver gender) was used. Confirmatory factor analysis (CFA) was conducted in Mplus Version 6 (Muthén & Muthén, 2006) on the entire sample at Time 1, to test the measurement structure underlying the construct of Risky Family context included in the model. The Chi square test of model fit was non-significant suggesting excellent fit, ($\chi^2= 3.255$, df=2, $p=0.1964$).

Descriptions of the four measures included in the composite are included below. For caregiver (CG) report, the Risky Family context construct included only three of the four scales used for the adolescent report, due to the measure of Family Conflict not being asked of CGs at Time 1. The inclusion of only three subscales precludes the use of CFA, but inter-scale correlations (Harsh Parenting with Parental Acceptance $r=.276$, Harsh Parenting with Parent-child Conflict $r=.405$, Parental Acceptance with Parent-child conflict $r=.457$, $p$ for all correlations $<.0001$) justified creating a composite of these three measures that roughly parallels the child report. Both child and caregiver Risky Family Context composite scores were calculated as z score composites.

Harsh Parenting was measured using an eight item scale adapted from a measure developed by Schaefer (1965) as a means of assessing children’s perceptions of their parents’ behavior. The harsh parenting measure has demonstrated reliabilities ranging from .71-.73 in English and Spanish speaking
samples (Gonzales et al., 2012). Measurement invariance analysis between the English and Spanish groups conducted at Time 1 caused the researcher’s to drop two items from the adolescent report measure of harsh parenting. For parent report, 3 items were dropped due to lack of invariance across language. Thus, the present analyses using adolescent report are conducted with a six item measure of harsh parenting, while parental report of harsh parenting consists of 5 items. The items assess parents’ use of physical discipline and sharp verbal reprimands as a disciplinary technique. Adolescents and caregivers were asked to rate on a five point scale how often in the last month each statement described the behavior of the parent or child (1=Almost never or never; 5=Almost always or always). Sample items include, “My (parent) screamed at me when I did something wrong” and “I spanked or slapped (child) when he/she did something wrong”.

The Parental Acceptance Scale is an 8-item scale that was adapted from the Acceptance subscale of the Children’s Reports of Parents’ Behavior Inventory (CRPBI; Schaefer, 1965) as a way of assessing adolescents’ perceptions of their parents’ supportive and accepting behavior. For the parent report, two items were dropped due to lack of invariance across language, resulting in a 6 item measure of parental acceptance. This scale has been cross validated in terms of ethnic and language equivalence in a Hispanic sample (Knight & Hill, 1998; Knight, Tein, & Shell, 1992; Knight, Virdin, & Roosa, 1994). Adolescents and caregivers were asked to rate on a 5-point scale how often in the last month each statement described their thoughts or feelings about their parent or child, respectively (1=Almost never or never; 5 = Almost always or always). Sample items include,
“My caregiver was able to make me feel better when I was upset” and “I told (child) that I liked him/her just the way he/she was”.

The Parent-Child Conflict measure was based on the work of Smetana (1988) and Harris (1992) and was used to measure the frequency and severity of conflicts within the parent-child relationship in three domains: household management conflicts, child activities conflicts, and child misbehavior conflicts. The three subscales in the measure were combined into a composite measure of total conflict. The Parent-Child Conflict measure is a 17-item measure, where adolescents were asked to rate on a scale of 0 to 4 (0=Never; 4=All the time) how often they got upset or disagreed with their caregivers about each item in the last month. Caregivers completed a parent version of the measure that asked them how often they disagreed with their adolescents in the past month. Sample items included: “How often do you and your adolescent disagree about chores at home” and “How often do you are your caregiver disagree about you being disrespectful”.

Family conflict was measured using the Family Conflict subscale of the Multicultural Events Scale for Adolescents (MESA), a scale developed by Gonzales, Gunnoe, Jackson & Samaniego (1995) to assess the lifestyles and experiences of culturally diverse urban adolescents. The MESA is made up of 70 items grouped into 8 categories or domains that were determined through expert ratings (family trouble/change, family conflict, peer hassles, school hassles, economic hassles, violence/victimization, language difficulties, and perceived discrimination) with two uncategorized items. Here, the family conflict subscale
is used, excluding those items that specifically refer to family conflict surrounding cultural issues (e.g. “A family member criticized you for hanging out with people of a different race or culture”). The Family Conflict subscale of the MESA has shown adequate test-retest reliability in other studies (r=.71 over a two week span) and correlated in the predicted direction with adolescent delinquency (Samaniego & Gonzales, 1999). The adolescents are asked to respond with a yes or no answer to whether or not each item has happened to him or her in the past three months. The number of affirmative endorsements for stressful events is counted to form an overall score. Items used include “Other members of your family (or people you live with) had a serious disagreement or fight” and “Members of your family hit or hurt each other”.

Adolescent acculturation. The Acculturation Rating Scale for Mexican Americans – II (ARMSA - II; Cuellar, Arnold, & Maldonado, 1995) was used at Time 1 to provide independent assessment of adolescents’ Anglo orientation or acculturation level. Here, acculturation will be included as a covariate due to its demonstrated correlations with risky sexual behavior. The ARMSA-II is the most widely used acculturation measure for Mexican Americans. The scale is composed of a 13-item Anglo orientation subscale and a 17-item Mexican orientation subscale with items reflecting predominantly behavioral indicators of acculturation and enculturation such as fluency in language spoken, literacy, and written language, types of food eaten, ethnicity of acquaintances, and ethnic identity. Adolescents indicated on a 5-point scale (1=not at all, 5=extremely often or almost always) how often they did each activity. Cuellar, Arnold, and
Maldonado (1995) validated the ARSMA-II on a generationally diverse sample of college students. In their sample, one-week test-retest reliabilities were .94 for Anglo Orientation, and concurrent validity with the original ARSMA yielded a Pearson product-moment correlation of .89. Also, the Anglo Orientation scores increased with each generation.

**Academic engagement.** The School Attachment Scale is a 9-item measure that assesses students’ positive feelings about school, their attitudes about their school experiences, and the extent to which students believe that school is important. The School Attachment Scale was derived from three other conceptually overlapping scales, which were then combined to form the current scale. The original scales were the School is Important Now Scale (Lord, Eccles, McCarthy, 1994), the Academic Liking Scale (Lord, et al., 1994), and the Importance of Education Scale (Smith, et al., 1997). Sample items include, “I have to do well in school if I want to be a success in life”, “I like to do well in school”, and “Getting a good education will help me when I grow up.” This scale has been shown to have good reliability and validity with Mexican-American adolescents (Gonzales et al., 2008).

**Peer delinquency.** This study employed a 10 item scale to assess the degree to which adolescents report association with deviant peers. This measure assesses to what extent the adolescent’s peers have engaged in delinquent behavior in the past month and is based on a measure developed by Barrera, Biglan, Ary, and Li (2001) which combined several scales previously used in research with adolescents (Dishion, Patterson, Stoolmiller, & Skinner, 1991;
Mason, Cauce, Gonzales, & Hiraga, 1995). The overall peer delinquency measure has demonstrated validity and reliability, correlating in the expected direction with externalizing behaviors in adolescents (German, Gonzales, & Dumka, 2009). Adolescents were asked to indicate how many of their peers had engaged in particular deviant or antisocial activities (e.g., “gotten drunk or high,” “started a fight with someone”) during the past month with responses ranging from 1 (none) to 5 (almost all).

**Risky sexual behavior.** The three Time 3 sexual behavior items were adapted from the 1999 Adult Behavioral Risk Factor Surveillance System (BRFSS; CDC, 1999), and the 2007 Youth Risk Behavior Survey (YRBS; CDC, 2007). The BRFSS is a 263-item survey that assesses adult behavioral risk factors and is administered and supported by the Center for Disease Control. Areas assessed in the BRFSS are health conditions, demographics, firearms, sexual behavior, quality of life, and health status. The 2007 YRBS is an 87-item survey that assesses adolescent behavior in ten categories: safety, violence, suicide, tobacco, alcohol, marijuana, other drug use, sexual behavior, diet and physical activity. In the present study three items were utilized to assess sexual risk behavior: Age at first intercourse (“How old were you the first time you had sexual intercourse?”), number of lifetime sexual partners (“How many partners have you ever had sexual intercourse with?”), and frequency of condom use (“When you had sexual intercourse in the past year, how often was a condom used?”) with responses including 1 (never), 2 (a few times), 3 (half of the time), 4 (most of the time) and 5 (all the time). For analysis on age of first sexual
intercourse, those who had not engaged in sexual intercourse by T3 (when the respondents were about 18 years old) were included in the analysis and coded as “19”, while those teens who reported having initiated sexual intercourse prior to T2 were excluded due to the inability to establish the temporal precedence of delinquent peer relations and academic engagement at T2 in relation to the initiation of sexual relations (N=182). Similarly, virgins at wave 5 were included in analyses on number of lifetime sexual partners, and coded as having zero lifetime partners. For analysis using the outcome of consistency of condom use, only those respondents who endorsed being sexually active by Time 3 (N=139) were included in the analyses.

**Data Analysis**

The goal of this project was to examine whether relations between family risk and sexual risk outcomes are mediated by academic engagement and/or delinquent peer relations. Path analysis in structural equation modeling (SEM) was used to test the study hypotheses, using Mplus 6.1 and full information maximum likelihood estimation (FIML) to account for missing data (Muthén & Muthén, 2006). SEM was used to test whether family-level risk as reported by both primary caregiver and teen in the 7th grade predicts 12th grade sexual risk behaviors (see Figure 1). Six separate models were run, one model per reporter of T1 family risk (C or CG report) for each of the three sexual risk outcomes (age at first intercourse, number of lifetime partners, and consistency of condom use). The fit of these models will provided a test of the hypothesized paths. These models tested the meditational hypotheses that 8th grade academic engagement
and/or overall peer delinquency (which will be allowed to correlate) mediate the relationships between early family risk and later sexual risk behavior. Mediation was tested through the distribution of the products approach using PRODCLIN (MacKinnon, Fritz, Williams, & Lockwood, 2007). Acculturation (not shown in the model) was included as a relevant covariate in the models and correlated with the exogenous variables. Lastly, these models were stacked by gender, to test whether the hypothesized processes differ between males and females. Variation due to gender is important to explore, but specific hypotheses were not offered for these analyses.

Results

Descriptive Statistics

Summary statistics were obtained assessing means, variance, normality (skewness, and kurtosis) on all variables to ensure the quality of the data and are presented in Table 1. As evidenced in the table, the number of lifetime partners outcome (a count variable) is highly kurtotic, with a non-normal distribution that can be attributed to a high number of individuals endorsing zero or one lifetime sexual partners. The distribution of responses to the number of partners item can be seen in Figure 3. Due to this high kurtosis, all analyses using this outcome measure were conducted using MLR estimation, a method of maximum likelihood estimation robust to non-normality. The descriptive statistics also reveal an extreme outlier for the number of partners outcome: one participant reported 40 lifetime sexual partners. This case was further investigated, and his reported number of partners at time 3 is consistent with his other high risk indices
of sexual risk taking (e.g. he initiated sex at age 10, reported having 10 partners within the past year, and having contracted an STD). This outlying case will be retained in all analyses.

*Figure 3*. Frequencies: Number of Lifetime Partners

**Zero Order Correlations**

Correlations between all measured variables in the study are reported in Table 2. In Table 2, the upper triangle presents the correlations for males (N =87). The lower triangle presents the correlations for females (N =102).

**Attrition Across Time**

Of the 189 adolescents randomized to the control condition that completed
the Time 1 (7th grade) interview, 168 (89%) completed the Time 2 (9th grade) interview and 144 (76%) completed the Time 3 interview (12th grade). For caregiver report of Time 1 variables, 189 primary caregivers completed the initial interview (the only wave of parent report data that will be used for these analyses). Of the predictor variables in the study, only one was related to attrition at Time 3: adolescent report of Anglo orientation was positively related to attrition, such that more acculturated adolescents were more likely to have completed a Time 3 interview \( (r=.156, p=.032) \).

**Adolescent Report of Family Risk Models**

**Age of sexual initiation.** The first model estimated (Figure 4) utilized adolescent report of 7th grade family risk as a predictor of 12th grade adolescent reported age of first sexual initiation, testing potential mediation pathways through academic engagement and peer delinquency. For male adolescents, age of sexual initiation was significantly predicted by both academic engagement \( (b^*=-.431, SE=.115, p<.0001) \) and peer delinquency \( (b^*=-.554, SE=0.107, p<.0001) \) at 8th grade, though risky family context did not predict these two hypothesized mediators, nor did it predict age of sexual initiation directly. Interestingly, the effect of academic engagement on age of sexual initiation was opposite the hypothesized direction: here greater academic engagement among boys was associated with a younger age of sexual initiation. For females, 8th grade overall peer delinquency predicted 12th grade report of age at first intercourse \( (b^*=-.289, SE=.113, p=.011) \). Also, 7th grade report of family risk was predictive of 12th grade report of age at first intercourse \( (b^*=-.273, SE=.106, p=.011) \).
neither academic engagement nor delinquent peers acted as a mediator between family risk and age of sexual initiation for either gender. One additional pattern that was found across all models (see Figures 4 - 9) is that the residuals for 8th grade academic engagement and peer delinquency were not significantly correlated for females but for males were negatively correlated.

**Number of lifetime sexual partners.** The statistical model tested and all standardized path coefficients are included in Figure 5. For males, 7th grade report of family risk significantly predicted 12th grade report of number of lifetime partners (b*=.224, SE=.111, p=.044), but it did not predict academic engagement or peer delinquency. The path from 8th grade peer delinquency to 12th grade report of number of lifetime partners was also statistically significant (b*=.348, SE=.127, p=.006). For females no paths were significant, though the relation between 8th grade peer delinquency and number of lifetime sexual partners did approach significance (b*=.203, SE=.123, p=.100), as did the relation between 7th grade report of acculturation and 8th grade report of peer delinquency (b*=.150, SE=.086, p=.082). There was no mediation by academic engagement or peer delinquency on number of lifetime sexual partners for either gender group.

**Consistency of condom use.** Figure 6 contains the statistical model tested and all standardized path coefficients. For males, the pathway from teen report of 7th grade family risk to 8th grade peer delinquency approached significance (b*=.232 SE=.119, p=.051) and the path from 8th grade peer delinquency to 12th
grade condom use was statistically significant ($b^*= -.543, \ SE = .158, p = .001$). A test of mediation showed that peer delinquency did mediate the association between family risk and number of lifetime sexual partners (effect = -.126, 95% CI = [-.79, -.03]). For females, there were no significant paths in the model.

**Caregiver Report of Family Risk Models**

**Age of sexual initiation.** As depicted in Figure 7, among males, caregiver report of 7th grade family risk was significantly related to 8th grade peer delinquency ($b^* = .266, \ SE = .096, p < .001$) which was in turn related to 12th grade report of age at sexual initiation ($b^* = -.561, \ SE = .109, p < .001$). A test of mediation showed that 8th grade peer delinquency acted as a mediator between 7th grade family risk and age of sexual initiation (effect = -.149, 95% CI = [-.26, -.03]). Additionally male 8th grade academic engagement predicted age of sexual initiation ($b^* = -.432, \ SE = .115, p < .001$) though academic engagement did not function as a mediator. For females, there was a direct effect of family risk on age of sexual initiation ($b^* = -.249, \ SE = .117, p = .033$) with no other significant paths in the model. Neither academic engagement nor peer delinquency functioned as mediators of the effect of family risk on age of sexual initiation for girls.

**Number of lifetime sexual partners.** The statistical model was tested and all standardized path coefficients are included in Figure 8. For males, family risk significantly predicted 8th grade peer delinquency ($b^* = .274, \ SE = .092, p = .003$) which in turn significantly predicted number of lifetime sexual partners reported at T3 ($b^* = .339, \ SE = .129, p = .008$). For males, 8th grade peer delinquency served
as a mediator of the effect of family risk on teen report of their number of lifetime partners (effect=.093, CI=[.047, .51]). Family risk also had a direct effect on number of lifetime sexual partners (b*=.222, SE=.112, p=.047). For females, there was a direct effect from T1 family risk to number of lifetime partners (b*=.368, SE=.110, p=.001) but no mediation by peer delinquency or academic engagement. Additionally, the relation between T1 family risk and T2 peer delinquency approached significance (b*=.163, SE=.110, p=.087) while the relation between acculturation and T2 peer delinquency was significant (b*=.178, SE=.085, p=.036).

**Consistency of condom use.** The statistical model tested and all standardized path coefficients are included in Figure 9. For males, family risk had a significant relation with 8th grade peer delinquency (b*=.336, SE=.101, p=.001), with 8th grade peer delinquency predicting lower 12th grade consistency of condom use (b*=-.476, SE=.167, p=.004). Peer delinquency acted as a mediator of the effects of family risk on consistency of condom use (effect=-.160, CI=[.03, .54]). For females, all paths were non-significant, though the path from family risk to 8th grade academic engagement did approach significance (b*=-.219, SE=.130, p=.092).

**Discussion**

In light of the considerable risk faced by Latino adolescents regarding sexual activity, the current study sought to test two potential pathways to sexual risk taking within the framework of social developmental theory (Catalano & Hawkins, 1996). Pathways from 7th grade family risk to age of sexual initiation,
number of lifetime sexual partners, and condom nonuse reported in the 12th grade were tested, examining whether 8th grade delinquent peer affiliations and/or academic engagement mediated this relationship for boys and girls. The role of deviant peer affiliations as a mediator of family risk was supported for males, but not females. In contrast, academic engagement did not play the hypothesized mediating role between family risk and any of the sexual risk outcomes. The importance of family risk was partially confirmed, with evidence of direct effects of family risk on number of partners for both genders, and on age of initiation for females only.

The hypothesized role of delinquent peer affiliations as a mediator of familial risks was largely confirmed for males. Among the male sample, delinquent peer affiliation at 8th grade mediated the relation between parent reported family risk and all three sexual risk outcomes, and also mediated the relation of teen reported family risk on condom use. In all models, 8th grade peer delinquency was related to all sexual risk outcomes. For females, parent and teen report of family risk was never significantly related to peer delinquency. Delinquent peers predicted only age of sexual initiation (for both the parent and teen report models). These results suggest that, as hypothesized, peer delinquency is an excellent predictor of sexual risk taking behavior among males, even mediating the negative effects of family risk. Interestingly for females, the strong role of delinquent peer affiliations supported by the literature does not emerge. This begs the question: why do deviant peers play such an important role for males but not for females? Perhaps being involved in a strong deviant peer
context increases the importance of upholding traditional Latino gender roles and an image of *machismo*, which may lead males to seek out multiple partners in order to prove their masculinity (Marín, Gómez, & Hearst, 1993). It is also possible that for this sample of females, romantic partnerships (neglected in the current model) are a more important determinant of sexual risk behavior than friendships. There is evidence that for Latinas, cultural factors like traditional gender roles and the balance of power within a relationship come to bear on situations like condom negotiation (Amaro & Gornemann, 1992; Purlerwitz, Amaro, De Jong, Gortmaker, & Rudd, 2002).

The hypothesized role of academic engagement as a mediator of family risk was completely rejected based on the present study’s results. Academic engagement did not have the hypothesized relations with family risk nor sexual risk behavior for either gender. In fact, those males who reported higher 8th grade academic engagement actually experienced a younger age of initiation into intercourse. This lack of findings and even a result opposite what would have been expected may be due to testing delinquent peers and academic engagement as mediators in the same model, effectively pitting them against each other. In order to test this theory, post hoc analyses were conducted to further investigate the paradoxical effect of male academic engagement on age of sexual initiation in both the parent and child report models. When the peer delinquency variable is removed from the model, leaving just the academic engagement variable as mediator, there is no longer a significant association between 8th grade academic engagement and age of initiation, though the non-significant coefficient is still
negative. These results suggest that perhaps the negative association between academic engagement and age of sexual initiation is not tapping an interpretable process, but is rather a methodological artifact of the model being tested.

Family risk proved to be an important predictor of sexual risk outcomes, exhibiting direct effects even five years after the initial assessment. For males, both parent and teen report of family risk were related to having had sexual relations with more partners by the end of high school, even with peer delinquency and academic engagement in the model. For females, both parent and teen report of family risk were predictive of an earlier age of sexual initiation, while parent report of risk was related to a higher number of lifetime partners. These findings provide fairly robust support for the role of risky family context on health risk behaviors. It is notable that the effects of family risk replicated here across parent and teen reports, even considering that the highest risk children who had initiated intercourse before 8th grade were excluded from the analyses on age of initiation. The fact that family risk was related to number of partners and age of initiation, but not condom use, highlights the importance of examining the potentially distinct processes operating to determine different sexual risk outcomes. To the extent that the family context was characterized by conflict, hostility, and a lack of attachment between caregiver and child in middle school, youth proved more likely to be sexually active and have had more partners in their senior year of high school. The role of risky family contexts, above and beyond the effects that families have on peers, can potentially be attributed to the inability of the family to help a child develop effective self-regulatory capacities, a lack of
support and communication (especially around issues of sexuality), the link between risky family context and adolescent risk for low self-concept, depression, and substance use, and perhaps a lack of effective parenting, discipline, and monitoring (Brody & Forehand, 1993; DiClemente et al., 200; Eisenberg, Zhou, Spinrad, Valiente, Fabes, & Liew, 2005; Miller, 2002; Morris, Silk, Steinberg, Myers, & Robinson, 2007; Sheeber, Hops, Alpert, Davis, & Andrews, 1997).

More research is needed to better understand the mechanisms underlying the links between family risk and later health risking behavior.

The inability of this model to consistently predict female sexual risk behaviors may be due to several factors, though the most likely culprit here may be omitted variable or specification bias. While structural equation modeling’s fit and modification indices provide extremely useful information to inform model building on the variables included in the analyses, unfortunately these indices give no information about variables of importance that may have not been included in the model. It is very possible that alternative pathways to sexual risk taking exist that were not adequately modeled here, such as those described in the preceding paragraph. It will be important for future research to examine these alternative pathways that may help us understand the predictors of female sexual risk taking. Some recent research may shed light on alternative pathways that may be of particular importance for females. For instance, Crockett, Rafaelli, Shen (2006) have found gender differences in the avenues to sexual risk; overall their model did not differ for boys and girls, but strengths of individual paths did. For girls, the pathway from substance use to sexual risk taking was stronger than it was for
boys, though no gender differences were found in the strength of the path from peer pressure to sexual risk taking. Similarly, some evidence suggests that early drinking is a better predictor of age of sexual initiation and engaging in recent intercourse for females, but not males (Stueve & O’Donnell, 2005). Also of note, Hipwell, Stepp, Keenan, Chung, and Loeber (2011) found using latent class analysis that sexually active girls tend to report more substance use and depression than non-sexually active girls, though levels of conduct problems, impulsivity, and deviant peer relationships are similar across the two groups. Results such as these suggest that, especially for girls, the present study’s focus exclusively on deviant peers and academic engagement may have been in error, and the potential effects of depression and substance use should also be examined.

Keeping with the varied findings in the literature regarding acculturation and sexual risk taking, here acculturation was unrelated to all sexual risk taking outcomes. It may be that the complexities underlying the link between acculturation and sexual risk taking (e.g. the role of nativity) were not adequately modeled here. Acculturation was, however, a significant predictor of peer delinquency in some of the female models, even controlling for prior levels of peer delinquency. This provides some confirmation of prior findings that lower acculturation may serve as a buffer, protecting young adolescents from susceptibility to deviant peer influences during the middle school transition.

**Limitations and Implications**

The results of the presented study should be interpreted in light of a few limitations. As mentioned above, there are several alternative pathways to sexual
risk taking that are of interest, but were not tested here. An additional limitation is that the sample is likely not entirely representative of low income Mexican American youth, considering that the participants were drawn from students that were still attending school in the 7th grade, and families that were willing to enroll in a family based intervention. Also, a limit inherent in the longitudinal model tested is that all of the highest risk teens, who initiated sexual intercourse before the 8th grade interview, had to be excluded from the analyses on age of initiation in order to maintain temporal precedence. Thus the highest risk families may be underrepresented in this sample, which limits the generalizability of the results. Lastly, the sample size in the present study (only 189 adolescents) is relatively small once divided by gender, which could have limited the power to detect effects.

There are definite implications of this work for the prevention of public health concerns such as STIs, HIV/AIDS, and unintended pregnancy. In light of the absence of clear positive effects of sexual education programming on the prevention of risky sexual behavior, the present study can help inform alternative prevention programs that target the contexts in which risk taking occurs, rather than the behaviors themselves. This study highlights the importance of tailoring prevention programming for target populations; for boys, family and peer relations are likely the most important domains for intervention, while for girls the family context seems to be of the most consequence. These findings underscore the importance of targeting ecological and social factors in hope of impacting risky decision making in teens.
### Table 1
*Descriptive Statistics for all Measured Variables.*

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<th>Variable name</th>
<th>N</th>
<th>Min.</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Skew</th>
<th>Kurtosis</th>
<th>Alpha Eng.</th>
<th>Alpha Span.</th>
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<td>-0.490</td>
<td>0.275</td>
<td>.661</td>
<td>.785</td>
</tr>
<tr>
<td>Academic Engagement (T1)</td>
<td>189</td>
<td>2.56</td>
<td>5.00</td>
<td>4.5902</td>
<td>.43704</td>
<td>-1.694</td>
<td>3.601</td>
<td>.712</td>
<td>.717</td>
</tr>
<tr>
<td>Peer Delinquency (T1)</td>
<td>189</td>
<td>1.00</td>
<td>3.40</td>
<td>1.5640</td>
<td>.51424</td>
<td>1.245</td>
<td>1.180</td>
<td>.874</td>
<td>.791</td>
</tr>
<tr>
<td>Academic Engagement (T2)</td>
<td>168</td>
<td>3.22</td>
<td>5.00</td>
<td>4.5238</td>
<td>.42019</td>
<td>-0.952</td>
<td>0.208</td>
<td>.794</td>
<td>.681</td>
</tr>
<tr>
<td>Peer Delinquency (T2)</td>
<td>168</td>
<td>1.00</td>
<td>4.20</td>
<td>1.5965</td>
<td>.60875</td>
<td>1.472</td>
<td>2.215</td>
<td>.909</td>
<td>.870</td>
</tr>
<tr>
<td>Age of First Intercourse (T3)</td>
<td>144</td>
<td>10.00</td>
<td>19.00</td>
<td>16.6181</td>
<td>2.19662</td>
<td>-0.610</td>
<td>-0.145</td>
<td>----</td>
<td>----</td>
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<tr>
<td>Number of Lifetime Partners (T3)</td>
<td>143</td>
<td>0.00</td>
<td>40.00</td>
<td>2.2937</td>
<td>4.34082</td>
<td>5.381</td>
<td>40.731</td>
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<td>----</td>
</tr>
<tr>
<td>Condom Use (T3)</td>
<td>88</td>
<td>1.00</td>
<td>5.00</td>
<td>3.83</td>
<td>1.408</td>
<td>0.257</td>
<td>-0.777</td>
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</tr>
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</table>

*Note: C = Child report, CG = Caregiver report.*
Table 2
Means, Standard Deviations and Zero-order Correlations of Study Variables (by Gender).

<table>
<thead>
<tr>
<th>Variable name</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family Risk (C,T1)</td>
<td>.256*</td>
<td>- .041</td>
<td>- .321*</td>
<td>.434*</td>
<td>-.217†</td>
<td>.330*</td>
<td>- .145</td>
<td>.319*</td>
<td>- .098</td>
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<tr>
<td>2. Family Risk (CG,T1)</td>
<td>.393*</td>
<td></td>
<td>- .007</td>
<td>- .351*</td>
<td>.177</td>
<td>- .237*</td>
<td>.350*</td>
<td>- .107</td>
<td>.321*</td>
<td>- .270†</td>
</tr>
<tr>
<td>3. Anglo Orientation (T1)</td>
<td>.160</td>
<td>- .091</td>
<td></td>
<td>.239*</td>
<td>.209†</td>
<td>.205†</td>
<td>- .008</td>
<td>- .043</td>
<td>- .022</td>
<td>- .198</td>
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<tr>
<td>4. Academic Engagement (T1)</td>
<td>- .180†</td>
<td>- .145</td>
<td>.174†</td>
<td></td>
<td>-.247*</td>
<td>.490*</td>
<td>- .281*</td>
<td>- .029</td>
<td>- .063</td>
<td>.017</td>
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<tr>
<td>5. Peer Delinquency (T1)</td>
<td>.447*</td>
<td>.354*</td>
<td></td>
<td>- .114</td>
<td>-.214*</td>
<td></td>
<td>.431*</td>
<td>- .224†</td>
<td>.226†</td>
<td>- .247†</td>
</tr>
<tr>
<td>6. Academic Engagement (T2)</td>
<td>- .145</td>
<td>- .209*</td>
<td>.112</td>
<td>.489*</td>
<td>-.084</td>
<td></td>
<td>-.454*</td>
<td>- .167</td>
<td>- .033</td>
<td>.254</td>
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<tr>
<td>7. Peer Delinquency (T2)</td>
<td>.272*</td>
<td>.323*</td>
<td></td>
<td>.239*</td>
<td>-.004</td>
<td>.601*</td>
<td>- .050</td>
<td></td>
<td>- .338*</td>
<td>.343*</td>
</tr>
<tr>
<td>8. Age of First Intercourse (T3)</td>
<td>- .356*</td>
<td>- .313*</td>
<td>- .159</td>
<td>-.013</td>
<td>-.288*</td>
<td>- .062</td>
<td>- .371*</td>
<td></td>
<td>- .675*</td>
<td>.398*</td>
</tr>
<tr>
<td>9. Number of Lifetime Partners (T3)</td>
<td>.237*</td>
<td>.385*</td>
<td></td>
<td>.184</td>
<td>-.023</td>
<td>.311*</td>
<td>.066</td>
<td>.329*</td>
<td>- .785*</td>
<td>- .285†</td>
</tr>
<tr>
<td>10. Condom Use (T3)</td>
<td>- .168</td>
<td>- .127</td>
<td>- .218</td>
<td>-.054</td>
<td>- .178</td>
<td>- .100</td>
<td>- .055</td>
<td>.284†</td>
<td>- .289†</td>
<td></td>
</tr>
</tbody>
</table>

N (Males)  
87  87  87  87  87  79  79  67  66  46
N (Females)  
102  102  102  102  102  89  89  77  77  42

M (Males)  
M (Females)  
-.1587  - .234| 3.934| 4.607| 1.561| 4.602| 1.583| 17.130| 1.091| 3.714|
SD (Males)  
2.597  2.266  .560  .468  .500  .471  .566  2.322  5.933  1.405
SD (Females)  
2.470  2.308  .557  .410  .529  .354  .647  1.956  1.388  1.419

Note: C = Child report, CG = Caregiver report. The upper triangle presents the correlations of males (N = 87). The lower triangle presents the correlations of females (N = 102).
† p < .10. * p < .05.
Figure 4. Age of Sexual Initiation Model, Child Report of Family Risk. Standardized regression coefficients are reported. (CG) = primary caregiver report, (C) = child report. Coefficients in parentheses reflect estimates for females, without parentheses reflect estimates for males. -- > Non-significant path, \( \rightarrow \) Significant path. \( *p < .05, \, \uparrow p < .10. \)
Figure 5. Number of Lifetime Partners Model, Child Report of Family Risk. Standardized regression coefficients are reported. (CG) = primary caregiver report, (C) = child report. Coefficients in parentheses reflect estimates for females, without parentheses reflect estimates for males. -- >Non-significant path, → Significant path  *p<.05, †p<.10.
Figure 6. Condom Use, Child Report of Family Risk.
Standardized regression coefficients are reported. (CG) = primary caregiver report, (C) = child report. Coefficients in parentheses reflect estimates for females, without parentheses reflect estimates for males.
-- > Non-significant path, ➔ Significant path. *p<.05, †p<.10.
Figure 7. Age of Sexual Initiation Model, Caregiver Report of Family Risk.
Standardized regression coefficients are reported. (CG) = primary caregiver report, (c) = child report. Coefficients in parentheses reflect estimates for females, without parentheses reflect estimates for males. 
**--** Non-significant path, **→** Significant path.  
$p<.05$, †$p<.10$. 

$\chi^2$: 5.032  
df: 8  
p = 0.7542
Figure 8. Number of Lifetime Partners Model, Caregiver Report of Family Risk.
Standardized regression coefficients are reported. (CG) = primary caregiver report, (C) = child report.
Coefficients in parentheses reflect estimates for females, without parentheses reflect estimates for males.
-- >Non-significant path, ➔ Significant path.  $p<.05$, †$p<.10$. 

$\chi^2$: 4.369  
$df$: 8  
$p = 0.8224$
Figure 9. Condom Use Model, Caregiver Report of Family Risk.
Standardized regression coefficients are reported. (CG) = primary caregiver report, (C) = child report. Coefficients in parentheses reflect estimates for females, without parentheses reflect estimates for males. -- >Non-significant path, → Significant path. *p<.05, †p<.10.
References


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Pulerwitz, J., Amaro, H., De Jon, W., Gortmaker, S.L., & Rudd, R. (2002). Relationship power, condom use and HIV risk among women in the USA. *AIDS Care, 14*(6), 789-800. doi: 10.1080/0954012021000031868


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APPENDIX

Measures
**Harsh Parenting**

*The following instructions and items make up the adolescent report measure of the primary caregiver’s harsh parenting. Parent report items are not included, but correspond to the teen report items with rewordings to reflect the change in reporter.*

Please tell us how often each of these statements is true for you, that is, how often each statement describes you or your thoughts/feelings about [CG ROLE OR CHILD NAME] in the past month, since [MONTH MARKER].

Por favor dinos que tan seguido te pasan estas cosas, o sea que tan a menudo, las frases siguientes describen tu manera de pensar o tus sentimientos acerca de [CG ROLE OR CHILD NAME] el mes pasado, desde [MONTH MARKER].

1. My () spanked or slapped me when I did something wrong.

   (Mi) ( ) me dió una nalgada o me abofeteó cuando hice algo malo.

   1. Almost never or never
   2. Once in a while
   3. Sometimes
   4. A lot of the time
   5. Almost always or always

2. In the past month, (my) () got so mad at me (he/she) called me names.

   Recuerda que estamos hablando acerca del último mes. (Mi) ( ) se enojó tanto conmigo, que (él/ella) me llamó nombres.
3. (My) ( ) got angry when I was noisy around the house.
   (Mi) ( ) se enojó cuando yo hice ruido en la casa.

4. (My) ( ) screamed at me when I did something wrong.
   (Mi) ( ) me gritó cuando hice algo mal.

5. (My) ( ) lost (his/her) temper with me when I didn’t help around the house.
   (Mi) ( ) perdió el control cuando no ayudé en la casa.

6. (My) ( ) bothered me until I did what (he/she) wanted me to do.
   (Mi) ( ) me molestó hasta que yo hice lo que (él/ella) quería que hiciera.

7. When I did something wrong, (my) ( ) punished me in front of my friends.
   (Mi) ( ) me castigó delante de mis amigos cuando hice algo malo.

8. When I did something wrong, (my) ( ) said (he/she) was disgusted with me.
   Cuando hice algo malo, (mi) ( ) me dijo que le repugnaba lo que había hecho.

**Primary Caregiver Acceptance**

_The following instructions and items make up the adolescent report measure of the primary caregiver’s acceptance. Parent report items are not included, but correspond to the teen report items with rewordings to reflect the change in reporter._

Please tell us how often each of these statements is true for you, that is, how often each statement describes you or your thoughts/feelings about your () in the past month, since (MONTH MARKER).
Por favor dínos qué tan seguido te pasan estas cosas, o sea qué tan a menudo, las siguientes frases describen tu manera de pensar o tus sentimientos acerca de tu ( ) el mes pasado, desde [MONTH MARKER].

1. (My) ( ) made me feel better after talking over my worries with (him/her).
   (Mi) ( ) me hizo sentir mejor después de platicarle mis preocupaciones.
   
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Almost never or never</td>
<td>1. Casi nunca o nunca</td>
</tr>
<tr>
<td>2. Once in a while</td>
<td>2. De vez en cuando</td>
</tr>
<tr>
<td>3. Sometimes</td>
<td>3. A veces</td>
</tr>
<tr>
<td>4. A lot of the time</td>
<td>4. Muchas veces</td>
</tr>
<tr>
<td>(frequently)</td>
<td></td>
</tr>
<tr>
<td>5. Almost always or always</td>
<td>5. Casi siempre o siempre</td>
</tr>
</tbody>
</table>

2. (My) ( ) saw my good points more than my faults.
   (Mi) ( ) vió mis cosas buenas más que mis fallas.

3. (My) ( ) spoke with me in a warm and friendly voice.
   (Mi) ( ) me habló con una voz cariñosa y amigable.

4. Remember we are still talking about the past month. (My) ( ) understood my problems and worries.
   Recuerda que estamos hablando acerca del último mes. (Mi) ( ) comprendió mis problemas y preocupaciones.

5. (My) ( ) was able to make me feel better when I was upset.
   (Mi) ( ) pudo hacerme sentir mejor cuando yo estaba molesto/molesta.

6. (My) ( ) cheered up me when I was sad.
   (Mi) ( ) me dió ánimo cuando yo estaba triste.
7. (My) ( ) had a good time with me.

(Mi) ( ) pasó un buen rato conmigo

8. (My) ( ) told or showed me that (he/she) liked me just the way I was.

(Mi) ( ) me dijo o demostró que le gustaba como yo era.

Primary Caregiver-Adolescent Conflict

The following instructions and items make up the adolescent report measure of the primary caregiver’s harsh parenting. Parent report items are not included, but correspond to the teen report items with rewordings to reflect the change in reporter.

Minor changes were made to instructions and item wordings between cohorts.

Cohort 1: Please tell me how often you and (your) ( ) disagreed or got upset about the following topics in the past month, since (MONTH MARKER):

Por favor dime qué tan seguido tú y (tu) ( ) estaban en desacuerdo o se enojaron el uno con el otro acerca de los siguientes temas en el mes pasado, desde (MONTH MARKER).

Cohort 2-3: Now, look at list X and tell me how often you and your () were in disagreement or upset with one another about the following topics in the past month, since (month marker).

Ahora, mira la lista X y dime que tan seguido tu y (tu) ( ) estaban en desacuerdo o se disgustaron el (la) uno (a) con el (la) otro (a) acerca de los siguientes temas en el mes pasado, desde (MONTH MARKER).
1. **Cohort 1:** In the past month, how often do you and (your) ( ) disagree with each other about money

En el último mes, qué tan seguido tú y (tu) ( ) estuvieron en desacuerdo o se disgustaron el uno con el otro por dinero

**Cohort 2-3:** In the past month, how often did you and (your) () disagree or get upset about money?

En el ultimo mes, ¿Qué tan seguido tu y (tu) () estuvieron en desacuerdo o se disgustaron por dinero?

1. Never 1. Nunca
2. Hardly ever 2. Casi nunca
3. Sometimes 3. A veces
4. Quite often 4. Muy a menudo
5. All the time 5. Todo el tiempo

2. **Cohort 1:** In the past month, how often do you and (your) ( ) disagree about your school grades and homework

En el último mes, que tan seguido tú y (tu) ( ) estuvieron en desacuerdo o se disgustaron por tus calificaciones o tarea escolar.

**Cohort 2-3:** In the past month, how often did you and your () disagree or get upset about your school grades and homework?

En el ultimo mes, ¿qué tan seguido tu y (tu) () estuvieron en desacuerdo o se disgustaron por tu calificaciones o tarea escolar?

3. **Cohort 1:** In the past month, how often do you and (your) ( ) disagree about your choice of friends
En el último mes, que tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por tu selección de amistades.

*Cohort 2-3:* In the past month, how often did you and your () disagree or get upset about your choice of friends?

En el último mes, ¿qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por tu selección de amistades?

4. **Cohort 1:** How you spend your free time

¿Como pasas tu tiempo libre?

*Cohort 2-3:* How often did you and your () disagree or get upset about how you spend your free time?

¿Que tan seguido estuvieron en desacuerdo o se disgustaron por como pasas tu tiempo libre?

5. **Cohort 1:** What time you come home

El tiempo en el que llegas a casa

*Cohort 2-3:* How often did you and (your) () disagree or get upset about…what time you come home?

¿Qué tan seguido tu u (tu) () estuvieron en desacuerdo o se disgustaron por…la hora en que llegas a casa?

6. **Cohort 1:** Chores at home

Tareas en el hogar

*Cohort 2-3:* How often did you and your () disagree or get upset about chores at home?
¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por tareas en el hogar?

7. **Cohort 1**: What time you go to bed

   Tu tiempo de acostarte

   **Cohort 2-3**: How often did you and your () disagree or get upset about…what time you go to bed?

   ¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por…la hora de acostarte?

8. **Cohort 1**: Family time together

   Tiempo familiar juntos

   **Cohort 2-3**: How often did you and your () disagree or get upset about…family time together?

   ¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por tiempo familiar juntos?

9. **Cohort 1**: clothes or appearance

   Tu ropa o apariencia

   **Cohort 2-3**: How often did you and your () disagree or get upset about…clothes or appearance?

   ¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por tu ropa o apariencia?

10. **Cohort 1**: In the past month, how often do you and (your) () disagree about movies, TV or music?
En el último mes, ¿qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por películas, televisión o música?

*Cohort 2-3: In the past month, how often did you and your () disagree or get upset about movies, TV, or music?*

En el último mes, ¿que tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por películas, televisión o música?

11. *Cohort 1:* Church

Iglesia

*Cohort 2-3: How often did you and your () disagree or get upset about church?*

¿Qué tan seguido estuvieron en desacuerdo o se disgustaron por la iglesia?

12. *Cohort 1:* Fighting with your brother or sister

Pelear con tu hermano o hermana

*Cohort 2-3: How often did you and your () disagree or get upset about… Fighting with your brother or sister?*

¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por pelear con tu hermano(s) o hermana(s)?

13. *Cohort 1:* You being disrespectful

Que tu seas irrespetuoso/a

*Cohort 2-3: How often did you and your () disagree or get upset about… You being disrespectful?*

¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por que tu seas irrespetuoso(a)?
14. **Cohort 1**: Lying

Mentir

**Cohort 2-3**: How often did you and your () disagree or get upset about…lying?

¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por mentir?

15. **Cohort 1**: In the past month, how often do you and (your) ( ) disagree about your swearing, talking back

En el último mes, ¿qué tan seguido tú y (tu) ( ) estuvieron en desacuerdo o se disgustaron por maldecir o responder?

**Cohort 2-3**: In the past month, how often did you and your () disagree or get upset about your swearing, talking back?

En el último mes, ¿que tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por maldecir o responder?

16. **Cohort 1**: Your activities with friends

Tus actividades con tus amigos

**Cohort 2-3**: How often did you and your () disagree or get upset about your activities with friends?

¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por tus actividades con tus amigos?

17. **Cohort 1**: Your behavior at school

Tu comportamiento en la escuela
Cohort 2-3: How often did you and your () disagree or get upset about…your behavior at school?
¿Qué tan seguido tú y (tu) () estuvieron en desacuerdo o se disgustaron por tu comportamiento en la escuela?

Family Conflict

Adolescent Report

Minor changes were made to Spanish instructions between cohorts.

I am going to read some events that sometimes happen to teenagers. I want you to tell me whether any of these events have happened to you in the past three months.

Some of these items ask about your parents. For these items I want you to answer about your parents or other adults who take care of you. In your case that would include your ( ) and ( ).

As I read these items, just say YES or NO to indicate whether these things have happened to you in the past three months, since (MARKER)

Cohort 1: Ahora te voy a leer algunos eventos que a veces les suceden a los adolescentes. Quiero que nos digas si alguno de estos eventos te ha sucedido en los últimos tres meses.

Algunos de estos puntos preguntan sobre tus padres. Para estos puntos quiero que contestes sobre tus padres u otros adultos que te cuidan. En tu caso eso incluiría tu ( ) y ( ).
Mientras leo estos puntos, solo di SI o NO para indicar si estas cosas te han sucedido en los últimos tres meses desde

*Cohort 2-3*: Ahora voy a leer algunos casos que a veces les suceden a los adolescentes. Quiero que me digas si alguno de estos eventos casos te ha sucedido en los últimos tres meses. Algunos casos van a preguntar acerca de tus padres o encargados. Cuando me refiero a encargados, me refiero a los adultos que son responsables de cuidarte a ti. En tu caso estas personas son (tu) (). Mientras lea estos artículos, nada más contesta SI o NO para indicar si estas cosas te han sucedido a ti en los últimos tres meses desde (*MARKER*).

1. You had a serious disagreement or fight with your parents
   Tuviste un serio desacuerdo o pelea con tus padres (o las personas que te cuidan).
   1. Yes, happened
   1. Sucedío
   2. No, did not happen
   2. No Sucedió

2. Your parents had a serious disagreement or fight with each other.
   Tus padres (o las personas que te cuidan) tuvieron un serio desacuerdo o pelea entre ellos.

3. Other members of your family (or people you live with) had a serious disagreement or fight.
   Otros miembros de tu familia (o las personas con las que vives) tuvieron un serio desacuerdo o pelea.

4. Members of your family hit or hurt each other.
   Miembros de tu familia se golpearon o lastimaron entre ellos.
5. Members of your family refused to speak to each other.

Miembros de tu familia se negaron a hablarse unos a otros.

Anglo Orientation

Adolescent Report

Minor changes were made to Spanish instructions between cohorts.

These next questions ask about how much you do things in English and Spanish and about your activities with people from different ethnic groups, including Anglos and people of Mexican origin. When I use the term Anglo in these questions, I am referring to individuals of White, European American backgrounds. You often hear the term ‘Whites’ instead of ‘Anglos’ but they mean the same thing.

Cohort 1: Las siguientes preguntas son acerca de cuánto haces las cosas en inglés o español y acerca de tus actividades con gente de diferentes grupos étnicos, incluyendo Anglosajones y personas de origen Mexicano. Cuando use el término Anglosajón en estas preguntas, me estoy refiriendo a individuos de raza blanca o de descendencia Europea. A veces escuchas los términos ‘blanco’ en vez de ‘Anglosajón’ pero significan lo mismo.

Cohort 2-3: Las próximas preguntas son acerca de cuánto haces las cosas en inglés o español y acerca de tus actividades con gente de diferentes grupos étnicos, incluyendo Anglosajones y personas de origen Mexicano. Cuando use el término Anglosajón en éstas preguntas, me estoy refiriendo a individuos de raza
blanca o de descendencia Europea. A veces escuchas los términos ‘blanco’ en
vez de ‘Anglosajón’ pero significan lo mismo.

1. I speak English.
   
   Yo hablo ingles.

   1. Not at all true 1. Nada cierto
   2. A little true 2. Un poco cierto
   3. Somewhat true 3. Algo cierto
   4. Mostly True 4. Cierro
   5. Very True 5. Muy cierto

2. I associate with Anglos.
   
   Me asocio con anglos.

3. I enjoy listening to English language music.
   
   Me gusta escuchar música en el idioma inglés.

4. I enjoy English language TV.
   
   Me gusta ver programas en la televisión que sean en inglés.

5. I enjoy English language movies.
   
   Me gusta ver películas en inglés.

6. I enjoy reading in English (e. g., books).
   
   Me gusta leer en inglés (e.g., libros).

7. I write in English (e. g., letters).
   
   Escribo en inglés (e.g., cartas).

8. My thinking is done in the English language.
   
   Mis piensamientos ocurren en el idioma inglés.
9. My contact with the USA has been...
   Mi contacto con los Estados Unidos ha sido...

10. When I was in elementary school, my friends were of Anglo origin.
    Cuando estaba en la escuela primaria, mis amigos(as) eran de origen Anglosajón.

11. My friends now are of Anglo origin.
    Mis amigos ahora son de origen Anglosajón.

12. I like to identify myself as an Anglo American.
    Me gusta identificarme como Anglo Americano(a).

13. I like to identify myself as an American.
    Me gusta identificarme como una Americano(a).

**School Attachment**

*Adolescent Report*

*Minor changes were made to Spanish instructions and item wordings between cohorts.*

Next I’m going to ask you more about school. Please tell me how true each statement is for you.  *Cohort 1:* Ahora te preguntaré más acerca de la escuela. Por favor dime qué tan cierta cada oración es para ti.

*Cohort 2-3:* Ahora te preguntaré más acerca de la escuela. Por favor dime qué tan cierta cada frase es para ti.

1. School is not so important for people like me.
Cohort 1: La escuela no es tan importante para niños como yo.

Cohort 2-3: La escuela no es tan importante para adolescentes como yo.

1. Not at all true
2. A little true
3. Somewhat true
4. Mostly True
5. Very True

1. Nada cierto
2. Un poco cierto
3. Algo cierto
4. CIERTO
5. Muy cierto

2. I have to do well in school if I want to be a success in life.

    Tengo que salir bien en la escuela si quiero tener éxito en la vida.

3. I like to do well in school.

    Me gusta salir bien en la escuela.

4. I really don't care much for school.

    No me interesa mucho la escuela.

5. It is very important to finish high school.

    Terminar la preparatoria es muy importante.

6. School is a waste of time.

    La escuela es una pérdida de tiempo.

7. I look forward to going to school every day.

    Me entusiasma asistir a la escuela todos los días.

8. I like school a lot.

    Me gusta mucho la escuela.

9. Getting a good education will help me in the future.

    Tener una buena educación me va a ayudar cuando sea adulto.
Overall Peer Delinquency

Adolescent Report

Minor changes were made to items between cohorts.

Think of your friends. Don't include people who you just know a little, like acquaintances, but the people you consider friends. During the past month, since (MARKER), how many of your friends...

Piensa sobre tus amigos. No incluyas a personas que solo conoces un poco, sino las personas que consideras amigos. Durante el último mes, desde (MARKER), cuántos de tus amigos...

1. Used force (e.g., threats or fighting) to get things from people?

   ¿Usaron la fuerza (por ejemplo, amenazas o peleas) para obtener cosas de la gente?

   1. None  
   2. Very few  
   3. Some  
   4. Most  
   5. Almost All

2. In the past month, how many of your friends have been in gang fights?

   ¿En el último mes, cuántos de tus amigos han estado en peleas de pandillas?

3. Cohort 1: Lied about their age to buy or do things?

   ¿Mintieron acerca de su edad para comprar o hacer cosas?
Cohort 2-3: How many of your friends lied about their age to buy or do things?

¿Cuántos de tus amigos mintieron acerca de su edad para comprar o hacer cosas?

4. Started rumors or told lies?
   ¿Empezaron rumores o dijeron mentiras?

5. Cheated on school tests?
   ¿Hicieron trampa en exámenes de la escuela?

6. Got suspended from school?
   ¿Los suspendieron de la escuela?

7. Missed school without an excuse?
   ¿Faltaron a la escuela sin tener una excusa?

8. Got in trouble at school?
   ¿Se metieron en problemas en la escuela

9. Started a fight with someone?
   ¿Empezaron una pelea con alguien?

10. Used a weapon (e.g., rocks, bottles, knives, guns)?
    ¿Usaron un arma (por ejemplo, piedras, botellas, cuchillos, pistolas)?
Sexual Activity

Adolescent Report

The next set of questions are about sexual activity. Remember that your answers are confidential. For these questions, the phrase 'sexual intercourse' refers to vaginal or anal intercourse, not oral sex.

Las siguientes preguntas son sobre la actividad sexual. Recuerda que tus respuestas son confidenciales. Para estas preguntas, la frase ‘relaciones sexuales’ se refiere a sexo vaginal o anal, no sexo oral.

1. How old were you the first time you had sexual intercourse?
   ¿Cuántos años tenías la primera vez que tuviste relaciones sexuales?

2. How many partners have you ever had sexual intercourse with?
   ¿Con cuántas personas has tenido relaciones sexuales?

3. When you had sexual intercourse in the past year, how often was a condom used?
   En los últimos 12 meses, ¿qué tan seguido usaste condones cuando tuviste relaciones sexuales?

   1. Never
   2. Few times
   3. Half of the time
   4. Most of the time
   5. All the time

   1. Nunca
   2. Pocas veces
   3. La mitad del tiempo
   4. La mayoría del tiempo
   5. Todo el tiempo