

RESEARCH ARTICLE

Sexual Initiation, Parent Practices, and Acculturation in Hispanic Seventh Graders

DAISY Y. MORALES-CAMPOS, PhD^a CHRISTINE MARKHAM, PhD^b MELISSA FLESCHLER PESKIN, PhD^c MARIA E. FERNANDEZ, PhD^d

ABSTRACT

BACKGROUND: Hispanic youths have high rates of sexually transmitted infections and pregnancies, yet little research has targeted multiple protective/risk factors for early sexual initiation in this group. This study examined two main factors—parenting practices and acculturation—on early sexual initiation among Hispanic middle school students in Texas.

METHODS: Using data from Hispanic seventh graders (N = 655) in 15 urban middle schools in southeast Texas, we examined the association between parental monitoring/parent-child communication about sexual health and sexual initiation.

RESULTS: After controlling for age, gender, parent/guardian education, family structure, acculturation level, and intervention status, the likelihood of ever having sex decreased 50% for every 1-point increase in the parental monitoring score (AOR = 0.50; 95% CI = 0.34, 0.75). No association was found between ever having sex and parent-child communication scores (AOR = 1.29; 95% CI = 0.76, 2.18). Furthermore, parental monitoring differed significantly between acculturation levels, 1-way analysis of variance $F(2, 652) = 5.07, p < 0.007$. This finding was unrelated to the parental monitoring-initiation association in the multivariable model.

CONCLUSION: Parental monitoring may delay sexual initiation among Hispanic middle school students. Parental monitoring differs by acculturation levels, warranting further investigation. These findings can inform school-based, parent-involved interventions designed to delay sexual initiation among Hispanic youth.

Keywords: sexual intercourse; Hispanic; parental monitoring; parent-child communication; acculturation.

Citation: Morales-Campos DY, Markham C, Peskin MF, Fernandez ME. Sexual initiation parent practices, and acculturation in Hispanic seventh graders. *J Sch Health*. 2012; 82: 75-81.

Received on January 26, 2011

Accepted on April 21, 2011

About 34% of Hispanic middle school students have never had sex, according to the Middle School Youth Risk Behavior Survey (MSYRBS).¹ Among sexually active Hispanic students, 5.2% reported their first sexual encounter before age 11 and 9.4% reported having multiple partners. These data¹ on Hispanic middle school students raise concern because early sexual activity is associated with an increased number of lifetime sexual partners,² sexually transmitted infections (STIs),^{2,3} and increased risk of teen pregnancy.^{2,3} Understanding early sexual initiation among Hispanic youth is particularly important

because they have the second highest rates of STIs (chlamydia: 1873.6 per 100,000; gonorrhea: 204.2 per 100,000)⁴ and the highest pregnancy rate (79.8 per 1000)⁵ compared to other racial/ethnic groups. In addition, Hispanics account for 13% of HIV diagnoses among adolescents 13-19 years old.⁶

Multiple factors have been shown to either be protective or increase risk for early sexual initiation among Hispanic youth; two such factors are parenting practices and acculturation. Parenting practices, such as parental monitoring and parent-child communication, may act as a protective factor in

^aPostdoctoral Research Associate, (moralescampo@uthscsa.edu), University of Texas Health Science Center at San Antonio, 7411 John Smith Dr., Suite 1000, San Antonio, TX 78229.

^bAssistant Professor, (christine.markham@uth.tmc.edu), University of Texas Health Science Center at Houston, 7000 Fannin, Suite 2616, Houston, TX 77030.

^cAssistant Professor, (melissa.f.peskin@uth.tmc.edu), University of Texas Health Science Center at Houston, 7000 Fannin, Suite 2658, Houston, TX 77030.

^dAssociate Professor, (maria.e.fernandez@uth.tmc.edu), University of Texas Health Science Center at Houston, 7000 Fannin, Suite 2558, Houston, TX 77030.

Address correspondence to: Daisy Y. Morales-Campos, Postdoctoral Research Associate, (moralescampo@uthscsa.edu), University of Texas Health Science Center at San Antonio, 7411 John Smith Dr., Suite 1000, San Antonio, TX 78229.

This study was conducted with funding from the Centers for Disease Control and Prevention under cooperative agreement U48DP000057-SIP4-04, "Evaluation of Abstinence-Only and Abstinence-Plus HIV, STI and Pregnancy Prevention for Middle School Students."

relation to youth's sexual activity. Parental monitoring refers to parents' awareness of their child's activities, friends, and physical location.⁷ The literature shows a relationship between high levels of parental monitoring and youths' reduced sexual risk-taking behavior or delayed sexual initiation.^{8,9} The majority of studies, however, do not include Hispanic middle school youth, but the few that do report similar findings.^{10,11}

Parent-child communication about sex can also affect youths' sexual behavior, though studies have inconsistent findings. Studies of Hispanic populations show that parent-child communication about sexual behavior is associated with lower rates of sexual activity,¹² less risky behavior,¹² and lower odds of teen pregnancy.^{12,13} However, some studies have shown no association between parent-child communication and sexual behavior among Hispanics.¹⁴ Few studies have focused on middle school youth.^{13,14}

Acculturation is a process of cultural change resulting from two groups of individuals from different cultures coming into continuous contact with one another.¹⁵ Studies examining the association between acculturation and Hispanic youths' sexual activity yield varied results that may be partially attributed to the use of different measures for acculturation. Using ethnicity and language spoken, Adam et al¹⁶ showed Hispanic English speakers were at higher risk for initiating onset of intercourse compared to Hispanic bilingual and Spanish speakers. Using the Short Acculturation Scale for Hispanics, Villarruel et al¹⁷ found less-acculturated youth were less likely to report ever having engaged in sexual intercourse, whereas Guilamo-Ramos et al¹⁸ using years in the US and language spoken found immigrant youth from Spanish-speaking homes were more likely to be sexually active than immigrant youth from English-speaking homes. Heather et al,¹⁹ however, found no association between acculturation level and adolescent sexual activity using an additive scale of acculturation.

Researchers have investigated the sexual activity of Hispanic youth in relation either to parenting practices (eg, parental monitoring and parent-child communication) or to acculturation; few studies have examined them in combination. Research on parenting practices and acculturation related to other youth risk behaviors and among other racial/ethnic groups has showed mixed results. Loukas et al²⁰ found that maternal monitoring protects against the effects of cumulative risk on delinquent behavior among highly acculturated Hispanic boys but did not among the less-acculturated group. In a study among Asian-American adolescents with low parental attachment, Hahm et al²¹ found that the high acculturated group was more likely to use alcohol compared to the low acculturated group. Le and Kato²² found that while sterner parental discipline was protective against risky sexual behavior among Lao/Mien youths, acculturation was not significant.

Despite some conflicting findings, research indicates that youth who acculturate more quickly to mainstream values may ignore traditional family values and rules.²³ These youth may be less strongly influenced by parenting practices and more likely to engage in risky behaviors. Questions remain concerning the potential influence of parenting practices and acculturation on Hispanic middle school students' sexual initiation.

In this study, we examined the effect of parenting practices on ever having had sex among Hispanic seventh graders, while controlling for acculturation and other recognized covariates. A better understanding of this association is needed because of the possible protective effects of parental monitoring and parent-child communication in this population. Findings will contribute to ideas on how to help strengthen and support school-based intervention programs in providing skills and support to parents in preventing their child's early sexual initiation.

METHODS

Participants

Fifteen urban middle schools in southeast Texas participated in a randomized, controlled trial designed to evaluate two youth sexual education interventions. The school district classified 78% of students as economically disadvantaged. Research staff recruited seventh graders during physical education or other elective classes. Eligible students received parental permission ($N = 1873$) to participate in the survey; 93% of these students provided assent, then completed the baseline survey ($N = 1742$). Reasons for nonparticipation included limited English proficiency, learning disabilities, absence on survey dates, or refusal to participate. Baseline data collection occurred between October 2006 and February 2007 and first follow-up between March and June 2007. Our substudy used data from Hispanic seventh graders across intervention arms who completed baseline and first follow-up ($N = 784$). Because certain demographics were only collected at baseline, we merged baseline and first follow-up data into one dataset. All other dependent and independent variables were collected at the same time point (first follow-up). Thus, the data set and analysis should be considered cross-sectional.

Measures

Demographics collected at baseline include gender, Hispanic subgroup, child's country of birth, and parent/guardian education. Measures collected at first follow-up include age, grade, mother's and father's country of birth, family structure, ever had sex, parental monitoring, parent-child communication, and acculturation.

Parental Monitoring. Five items assessed parental monitoring as perceived by students: how much their

parents really knew about who their friends were, how they spent their money, where they were after school, where they went at night, and what they did with their free time.²⁴ Response options included don't know, know a little, know a moderate amount, and know a lot. The internal consistency of the scale was 0.83 with current data. We averaged and analyzed the parental monitoring scores as a continuous variable with values ranging from 0 to 3.

Parent-Child Communication. To measure parent-child communication about sexual behavior topics, seven items were asked, including "How many times has your parent ever talked to you about waiting to have sex?" and "How many times has your parent ever talked to you about condoms?"²⁵ Response options included we've never talked about it, we've talked about it once or twice, and we've talked about it a lot of times. The internal consistency of the scale was 0.89 using current data. We analyzed scale scores as a continuous variable with values ranging from 0 to 2.

Ever Had Sex. To assess sexual behavior, students selected yes or no to the question "Have you ever had vaginal sex?" The survey described vaginal sex as "when a boy puts his penis inside a girl's vagina. Some people call this 'having sex' or 'doing it.'"

Covariates. We used measures from the established literature for gender, age, family structure, parent/guardian education, and acculturation. To measure family structure, we asked: "Think about the household you live in most of the time. Who do you live with within this household?" Students chose all that applied from these options: mother, father, stepmother, stepfather, other relative(s), or unrelated adults. We created 4 categories of family structure: single biological parent only, both biological parents, single biological parent and another adult, and other. To measure parent/guardian education, we asked separately for mother, father, and guardian: "Please mark the highest level your _____ completed in school." Students selected from these responses: did not finish high school, graduated from high school, some college, vocational/technical school, and graduated from college. We created 4 categories for education: did not finish high school, graduated from high school, some college/vocational or technical school, and graduated from college

Acculturation was measured with the 12-item Linguistic Proficiency subscale (Table 1) of the Bi-dimensional Acculturation Scale for Hispanics (BAS/LP).²⁶ The BAS/LP captures how an individual moves through Hispanic dimension (HD) and the non-Hispanic (NHD) dimension, whereas other scales measured it as a gain of one culture and loss of another. The subscale had an internal consistency on HD of 0.96 and the NHD 0.92 based on current data. Response options were on a 4-point scale from 0 to 3: very poorly, poorly, well, and very well. Using Marin and

Table 1. Bicultural Acculturation Scale for Hispanic Language Proficiency (BAS/LP) Items*

1	How well do you speak English?
2	How well do you read English?
3	How well do you understand TV programs in English?
4	How well do you understand radio programs in English?
5	How well do you write in English?
6	How well do you understand music in English?
7	How well do you speak Spanish?
8	How well do you read Spanish?
9	How well do you understand TV programs in Spanish?
10	How well do you understand radio programs in Spanish?
11	How well do you write in Spanish?
12	How well do you understand music in Spanish?

*Source: Ref. 26.

Gamba's²⁶ cutoffs, we created 3 categories for acculturation level for all analyses: low (cutoffs: >2.5 on HD and <2.5 on NHD; <2.5 either on HD or NHD), bicultural (cutoffs: >2.5 either on HD or NHD), and high (cutoffs: <2.5 on HD and >2.5 on NHD).

We included Hispanic students across all intervention arms to increase the sample size for the analysis and used intervention status as a covariate to control for differences between groups.

Procedures

Trained staff collected data in schools during regular class time. Staff obtained parental consent and student assent before study participation. To protect student confidentiality, staff assigned students a unique identification number. To administer both baseline and first follow-up surveys, staff used laptops equipped with audio computer-assisted self-interview (A-CASI) technology. Staff remained in the classroom to monitor survey implementation and answer questions.

Data Analysis

We used STATA 10.0 for all analyses.²⁷ A total of 784 students completed the survey. Students missing data (N = 129) on the independent variables, outcome, and covariates were removed, leaving a final sample of 655 Hispanic students for analysis.

Descriptive statistics were used to describe the sample and the variable distribution. Using 1-way analyses of variance (ANOVAs) and chi-square analyses, we individually tested for differences among acculturation levels for the independent variables, outcome variable, and covariates. Post hoc Tukey HSD test was done to determine specific differences among acculturation levels and parental monitoring. To assess the association between independent variables (parental monitoring and parent-child communication) and ever had sex, we calculated bivariate prevalence odds ratios (ORs) and 95% confidence intervals.

Using a 10% change between unadjusted and adjusted odds ratios²⁸ and the log likelihood test

($p \leq 0.05$),²⁹ we identified confounders. Wherever we found a 10% change but the results of the log likelihood test ($p \leq 0.05$) were not statistically significant, or vice versa, we considered the covariates as confounders. When it was unclear whether a variable was a confounder, we used the literature to make a decision.

The multivariable logistic regression model included the independent variables (parental monitoring and parent-child communication) and confounders identified. We entered all variables at one time into the model and then removed them using the log likelihood test.²⁹ The final model included both confounders contributing significantly to the model and pertinent variables from the literature. We also conducted the goodness-of-fit test on the final model.²⁹

RESULTS

Demographics

Table 2 presents demographic information on the sample. Participants were primarily of Mexican origin (79%), female (60%), and had a mean age of 13 (SD = 0.74). The majority of students were US born (76%) and first generation (49%). Almost equal percentages of students were in the bicultural (32%), low (34%), and high (34%) acculturation levels. Most students reported living with both biological parents (49%) and having a parent/guardian, who did not finish high school (60%). The mean score for the parental monitoring scale was 2.0 (SD = 0.77; range 0-3); for parent-child communication, it was 1.0 (SD = 0.61; range 0-2).

Bivariate Analysis

Significant differences were identified between acculturation levels and some of the independent variables and covariates at the bivariate level. Parental monitoring differed significantly between acculturation levels, 1-way ANOVA $F(2, 652) = 5.07$, $p < 0.007$. Tukey post hoc tests ($p < 0.02$ or better for all significant contrasts) for pairwise comparison between acculturation levels indicated bicultural students ($M = 2.12$) had higher parental monitoring scores compared to low ($M = 1.92$) and high students ($M = 1.91$). However, due to insufficient sample size when dividing the sample by acculturation levels, we could not explore this association further. Age, ANOVA $F(2, 652) = 6.44$, $p < 0.001$, gender, $X^2(2, N = 654) = 13.57$, $p < 0.041$, parent/guardian education, $X^2(6, N = 654) = 13.14$, $p < 0.001$, and family structure, $X^2(6, N = 654) = 28.08$, $p < 0.001$, also differed significantly between acculturation levels. There were no significant differences between acculturation levels and parent-child communication or the outcome, ever had sex, individually.

Table 2. Demographic Characteristics of Hispanic Seventh Graders in an Urban City in Southeast Texas (N = 655)

Characteristics	N	%
Gender		
Male	260	40
Female	395	60
Age		
<12	156	24
13+	499	76
Country of birth		
United States	500	76
Mexico	14	23
Other (includes Latin America)	8	1
Hispanic subgroup		
Mexican	518	79
Central and South American	80	12
Other	47	7
Missing	10	2
Generation status		
First generation	155	24
Second generation	434	66
Third generation	64	10
Missing	2	0
Family structure		
Single biological parent only	201	31
Both biological parents	323	49
Biological parent and other adult	59	9
Other	72	11
Parent/guardian education		
Did not finish high school	391	60
Graduated high school	147	22
Some college/vocational or technical school	56	9
Graduated college	61	9
Acculturation		
Bicultural	212	32
Low	220	34
High	223	34

Table 3 shows the bivariate analyses between the independent variables and ever had sex. Findings indicate a significant association between parental monitoring and ever had sex. The odds of ever having had sex decreased by 48% for every 1-point increase in the parental monitoring score (OR = 0.52; 95% CI = 0.38, 0.73). There was no significant association between ever having had sex and parent-child communication (OR = 0.81; 95% CI = 0.52, 1.28).

Multivariable Analysis

The covariates included in the final model were age, gender, parent/guardian education, family structure, acculturation, and intervention status (Table 4). After adjusting for these covariates, the odds of ever having had sex decreased significantly by 50% for every 1-point increase in the parental monitoring score (AOR = 0.50; 95% CI = 0.34, 0.75). Females were 76% less likely to report ever having had sex compared to males (AOR = 0.24; 95% CI = 0.13, 0.44). The odds of ever had sex increased 2-fold with every 1 year increase in age (AOR = 2.10; 95% CI = 1.40, 3.14).

Table 3. Bivariate Odds Ratios Describing the Association Between Parental Monitoring, Parent-Child Communication and Ever Had Vaginal Sex Among Hispanic Seventh Graders in a Large Urban City in Southeast Texas (N = 655)

	Ever Had Vaginal Sex (N = 57)
	OR (95% CI)
Parental monitoring	0.52 (0.38, 0.73)*
Parent-child communication	0.81 (0.52, 1.28)

*p ≤ .01.

There was no association between ever had sex and parent-child communication scores (AOR = 1.29; 95% CI = 0.76, 2.18). Other variables, such as parent/guardian education, family structure, acculturation, and intervention status, were not associated with ever having had sex. The goodness-of-fit test conducted on the final model was nonsignificant.²⁹

DISCUSSION

Early sexual activity among Hispanic youth shows an increased risk of teen pregnancy and STI.^{2,3} Past research on parental practices shows that higher levels of parental monitoring^{8,9} and parent-child communication^{12,13} are associated with lower levels of sexual behaviors. Research¹⁶⁻¹⁹ exploring the association between acculturation and sexual behavior, however, has yielded inconsistent findings. Our study included a sample of urban, Hispanic seventh graders to explore the association between parental monitoring and parent-child communication and ever

Table 4. Multivariate Model Describing the Association Between Parental Monitoring, Parent-Child Communication and Ever Had Sex Among Hispanic Seventh Graders (N = 655)

	Ever Had Vaginal Sex (N = 57)
	OR (95% CI)
Gender (male)	
Female	0.24 (0.13, 0.45)*
Age	2.06 (1.38, 3.05)*
Acculturation level (bicultural)	
Low	0.94(0.046, 1.91)
High	1.11(0.53, 2.32)
Parental monitoring	0.51 (0.34, 0.75)*
Parent-child communication	1.29 (0.76, 2.17)
Parent/guardian education (did not finish high school)	
Graduated high school	1.00 (0.49, 2.03)
Some college, vocational/technical school	1.33 (0.52, 3.41)
Graduated college	0.32 (0.07, 1.47)
Family structure (single biological parent only)	
Both biological parents	0.92 (0.46, 1.84)
Single biological parent and another adult	2.02 (0.77, 5.33)
Relative/no relationship	0.82 (0.32, 2.12)
Intervention status (control group)	
Intervention group	0.71 (0.39, 1.31)

*p ≤ .01.

had sex when adjusting for covariates, including acculturation. We investigated the association between these variables—something that had not been done previously in this population. Past studies on acculturation have relied on a unidimensional scale¹⁷ or proxies to measure acculturation,^{16,18,19} whereas our study used a bidimensional measure of acculturation.²⁶ Using this measure, our analysis found parental monitoring differed by acculturation levels, which warrants further investigation.

In our study, after adjusting for acculturation, Hispanic seventh graders had decreased odds of ever having had sex with increases in parental monitoring. While in other studies authors had not adjusted for acculturation level, our main finding is consistent with other studies^{10,11} that have explored the association between parental monitoring and sexual behavior among Hispanic youth. Children who were monitored by their parents delayed sexual initiation¹⁰ and reported fewer numbers of partners.¹¹ Durrett et al³⁰ showed Hispanic parents are more protective and monitor their children more often than non-Hispanic parents, which also supports our finding. However, the aforementioned study³⁰ only focused on younger children in elementary school. Hispanic parents may also feel the need to closely monitor their child's activities to keep them safe from possible threats.³¹ This is a possible scenario if Hispanic parents live in disadvantaged neighborhoods and believe monitoring ensures their child's safety.

There was no significant association between parent-child communication and ever had sex among the Hispanic seventh graders in our study. A study with Hispanic sixth through eighth graders also found no association between parent-child communication and lifetime sexual involvement.¹⁴ Hispanic parents typically indicate embarrassment or reluctance to discuss³² sexual topics with their child compared with African-American and White parents. Among Hispanics subgroups, Mexican parents report less breadth of communication,³³ and Puerto Rican and Dominican mothers state embarrassment or reluctance to discuss sexual health.³⁴

Reluctance to discuss sensitive sexual issues or lower levels of sexual knowledge may negatively influence communication about sexual topics among Hispanic parents and their children. Gallegos et al³⁵ found a significant difference in sexual knowledge in relation to Mexican parents' education level, specifically a positive association between higher levels of education and higher sexual knowledge. Although the majority (60%) of parents/guardians did not finish high school, there was variability in the frequency of parent-child communication in our sample. Even though parents/guardians discussed sexual topics with their children, the content of the discussions may be limited

due to lower sexual knowledge, thus explaining our nonsignificant finding.

The finding of no significant association between acculturation and ever had sex among Hispanic seventh graders is similar to the results from middle school students in a New York City study.¹⁹ In that study, Heather and colleagues found no significant association between acculturation (OR = 1.0; 95% CI = 0.9, 1.1) and lifetime sexual involvement among Hispanic (predominantly Dominican) sixth through eighth graders.¹⁹ In comparing Heather's study to other studies that reported an association between these behaviors, similarities between studies included large sample sizes and use of Hispanics. Differences between Heather's study and other studies included geographic location of study, student's grade level (eg, middle school, high school, or both) measures used for acculturation, and sexual behavior as the outcome variable (eg, lifetime sexual involvement, ever had sex, or a summative risk behavior score).

Limitations

This study's limitations include its cross-sectional study design, potential introduction of selection and information bias, and the types of measures used. The study gives a snapshot of Hispanic seventh graders' sexual initiation at 1 point in time; thus, we are unable to determine if the independent variables caused or preceded the outcome. Selection bias may have occurred, given that researchers only administered the survey to English-speaking students and required parental consent for students to participate in the study. Because Spanish-speaking students and students with less involved parents were not likely to be included, the results associated with parenting practice variables may have moved closer toward the null. As such, the results are only generalizable to Hispanic English-speaking seventh graders in a large urban city in southeast Texas. Information bias may have resulted from 2 sources: (1) the overreporting of sex by boys and underreporting by girls and (2) children more closely monitored by parents may be more inclined to underreport sex. Parents' actual behavior toward their children also should be measured, because we only measured parental monitoring and parent-child communication through the student's perspective. Additionally, we only measured linguistic acculturation, instead of also measuring ethnic identification, cultural traditions, and social relationships. We also did not measure peer norms³⁶ and media^{37,38} influence, which are known to affect sexual initiation in youth. Not controlling for these potential influences may overestimate the role of parenting practice variables, thus future research should control for multiple factors. Sample size limitations also inhibited us from further investigating the observed differences in parental monitoring by acculturation group.

CONCLUSIONS

The majority of studies investigating parenting practices and sexual behaviors have mostly focused on adolescents in high school and/or were limited to White, African-American, and mixed race/ethnicity adolescents. Our findings describe the association between these variables among Hispanic seventh graders, a population that has not been widely studied. These findings provide some evidence of the relationship between these variables and also point to new directions for research concerning parenting practices, acculturation, and sexual initiation. For example, longitudinal studies are required to determine the temporal sequence of the variables among Hispanic middle school students. While we observed differences in parental monitoring by acculturation group, additional studies are needed to further explore how the association between parental monitoring and ever had sex differs between low, bicultural, and high acculturated Hispanic youth.

IMPLICATIONS FOR SCHOOL HEALTH

These findings can inform the development or enhancement of school-based interventions designed to delay sexual initiation for Hispanic youth and their parents. Our results suggest that Hispanic parents are successful in monitoring their children, but they may need skills to facilitate communication about sexual topics and possibly need more knowledge about them. Schools offering sexual education curriculum (with topics such as STIs, HIV/AIDS, condoms, and puberty) should incorporate a skills-building component to help Hispanic parents communicate with their children about these topics. Skills-building practice allows parents to become comfortable in approaching and discussing these topics with their children. Parents also should be provided with sexual health education to increase their knowledge and help them with the content of their discussions. Some evidence suggests that programs involving parents reduce sexual risk-taking among teens, especially if the teens themselves were actively involved.² Schools can deliver the curriculum to parents through parent educators working for school districts or using a computer-based intervention as described by Villarruel et al.³⁹ We believe schools offering programming for parents is essential for delaying sexual initiation among youth. Offering such programming will support the healthy reproductive decisions of adolescents by emphasizing the parental role, which is a vital support system for these decisions in Hispanic populations.

Human Subjects Approval Statement

This study was approved by the University of Texas Health Science Center-Houston Institutional Review Board.

REFERENCES

- Shanklin SL, Brener N, McManus T, Kinchen S, Kann L. *Middle School Youth Risk Behavior Survey, 2005*. US Department of Health and Human Services, Centers for Disease Control and Prevention; 2007. Available at: http://www.cdc.gov/HealthyYouth/yrbs/middleschool2005/pdf/YRBS_MS_05_fullreport.pdf. Accessed December 30, 2010.
- Manlove J, Franzetta K, McKinney K, Romano Papillo A, Terry-Humen E. *No Time to Waste: Programs to Reduce Teen Pregnancy Among Middle School-aged Youth*. Washington, DC: National Campaign to Prevent Teen Pregnancy; 2004. Available at: http://www.thenationalcampaign.org/resources/pdf/pubs/No_Time.pdf. Accessed December 30, 2010.
- Kirby D. *Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy; 2007. Available at: http://www.thenationalcampaign.org/EA2007/EA2007_full.pdf. Accessed December 30, 2010.
- Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance, 2008*. Atlanta, GA: US Department of Health and Human Services; 2009. Available at: <http://www.cdc.gov/std/stats08/surv2008-Complete.pdf>. Accessed December 30, 2010.
- Ventura S, Abma J, Mosher W. Estimated pregnancy rates by outcomes for United States, 1990-2005: An update. *National Vital Statistics Reports*. 2009;58(4):1-16.
- Centers for Disease Control and Prevention. *HIV/AIDS Surveillance in Adolescents and Young Adults (Through 2008): Slide 4: Diagnoses of HIV Infection and Population Among Adolescents 13-19 Years of Age, by Race/Ethnicity, 2008-37 States*. Atlanta, GA: US Department of Health and Human Services; 2010. Available at: <http://www.cdc.gov/hiv/topics/surveillance/resources/slides/adolescents/slides/Adolescents.pdf>. Accessed December 30, 2010.
- Huebner A, Howell L. Examining the relationship between adolescent sexual risk-taking and perceptions of monitoring, communication, and parenting styles. *J Adolesc Health*. 2003;33(2):71-78.
- Rodgers K. Parenting processes related to sexual risk-taking behaviors of adolescent males and females. *J Marriage Fam*. 1999;61(1):99-109.
- Jacobson K, Crockett L. Parental monitoring and adolescent adjustment: an ecological perspective. *J Res Adolesc*. 2000;10(1):65-97.
- Longmore M, Manning W, Giordano P. Preadolescent parenting strategies and teens' dating and sexual initiation: a longitudinal analysis. *J Marriage Fam*. 2001;63(2):322-335.
- Kerr M, Beck K, Downs Shattuck T, Kattar C, Uriburu D. Family involvement, problem and prosocial behavior outcomes of Latino youth. *Am J Health Behav*. 2003;27(Suppl 1):55-65.
- Pick S, Palos P. Impact of the family on the sex lives of adolescents. *Adolescence*. 1995;30(119):667-675.
- Baumeister L, Flores E, Marin B. Sex information given to Latina adolescents by parents. *Health Educ Res*. 1995;10(2):233-239.
- Christopher F, Johnson D, Roosa M. Family, individual, and social correlates of early Hispanic adolescent sexual expression. *J Sex Res*. 1993;30(1):54-61.
- Berry J. Conceptual approaches to acculturation. In: Chun K, Balls Organista P, Marin G, eds. *Acculturation: Advances in theory, Measurement, and Applied Research*. Washington, DC: American Psychological Association; 2003:17-37.
- Adam M, McGuire J, Walsh M, Basta J, LeCroy C. Acculturation as a predictor of the onset of sexual intercourse among Hispanic and white teens. *Arch Pediatr Adolesc Med*. 2005;159(3):261-265.
- Villarruel A, Jemmott J III, Jemmott L, Ronis D. Predictors of sexual intercourse and condom use intentions among Spanish-dominant Latino youth: a test of the planned behavior theory. *Nurs Res*. 2004;53(3):172.
- Guilamo-Ramos V, Jaccard J, Pena J, Goldberg V. Acculturation-related variables, sexual initiation, and subsequent sexual behavior among Puerto Rican, Mexican, and Cuban youth. *Health Psychol*. 2005;24(1):88-95.
- Heather J, Roger D, Bruce Armstrong D, Roberta Y, Lorraine T. Sexual, assaultive, and suicidal behaviors among urban minority junior high school students. *J Am Acad Child Adolesc Psychiatry*. 1995;34(1):73-80.
- Loukas A, Suizzo M, Prellow H. Examining resource and protective factors in the adjustment of Latino youth in low income families: what role does maternal acculturation play? *J Youth Adolesc*. 2007;36(4):489-501.
- Hahm H, Lahiff M, Guterman N. Acculturation and parental attachment in Asian-American adolescents' alcohol use. *J Adolesc Health*. 2003;33(2):119-129.
- Le T, Kato T. The role of peer, parent, and culture in risky sexual behavior for Cambodian and Lao/Mien adolescents. *J Adolesc Health*. 2006;38(3):288-296.
- Falicov C. Mexican families. In: McGoldrick M, Giordano J, Garcia-Preto N, eds. *Ethnicity and Family Therapy*. New York: The Guilford Press; 1996:169-182.
- Brown B, Mounts N, Lamborn S, Steinberg L. Parenting practices and peer group affiliation in adolescence. *Child Dev*. 1993;64(2):467-482.
- Ball J, Pelton J, Forehand R, Long N, Wallace S. Methodological overview of the Parents Matter! program. *J Child Fam Stud*. 2004;13(1):21-34.
- Marin G, Gamba R. A new measurement of acculturation for Hispanics: the Bidimensional Acculturation Scale for Hispanics (BAS). *Hispanic J Behav Sci*. 1996;18(3):297-316.
- StataCorp. *Stata Statistical Software: Release 11*. College Station, TX: Stata Corp LP; 2009.
- Maldonado G, Greenland S. Simulation study of confounder-selection strategies. *Am J Epidemiol*. 1993;138(11):923-936.
- Hosmer D, Lemeshow S. *Applied Logistic Regression*. 2nd ed. New York: John Wiley & Sons; 2000.
- Durrett M, O'Bryant S, Pennebaker J. Child-rearing reports of white, black, and Mexican-American families. *Dev Psychol*. 1975;11(6):871-872.
- Romo L, Nadeem E, Au T, Sigman M. Mexican-American adolescents' responsiveness to their mothers' questions about dating and sexuality. *J Appl Dev Psychol*. 2004;25(5):501-522.
- Meneses L, Orrell-Valente J, Guendelman S, Oman D, Irwin C Jr. Racial/ethnic differences in mother-daughter communication about sex. *J Adolesc Health*. 2006;39(1):128-131.
- Raffaelli M, Green S. Parent-adolescent communication about sex: Retrospective reports by Latino college students. *J Marriage Fam*. 2003;65(2):474-481.
- McKee M, Karasz A. "You have to give her that confidence": conversations about sex in Hispanic mother-daughter dyads. *J Adolesc Res*. 2006;21(2):158-184.
- Gallegos E, Villarruel A, Gómez M, Onofre D, Zhou Y. Research brief: sexual communication and knowledge among Mexican parents and their adolescent children. *J Assoc Nurses AIDS Care*. 2007;18(2):28-34.
- Kinsman SB. Early sexual initiation: the role of peer norms. *Pediatrics*. 1998;102(5):1185.
- Ashby SL. Television viewing and risk of sexual initiation by young adolescents. *Arch Pediatr Adolesc Med*. 2006;160(4):375.
- Collins RL. Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatrics*. 2004;114(3):e280.
- Villarruel AM, Loveland-Cherry CJ, Ronis DL. Testing the efficacy of a computer-based parent-adolescent sexual communication intervention for Latino parents. *Fam Relat*. 2010;59(5):533-543.

Copyright of Journal of School Health is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.