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# Familial, Cultural and Psychosocial Influences of Use of Effective Methods of Contraception among Mexican-American Adolescents and Young Adults

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# **Abstract**

**Study Objective**—To compare culturally relevant factors associated with ever having used an effective method of contraception among a cohort of predominantly Mexican American females.

**Design**—Face to face interviews were conducted in either English or Spanish. The survey used was developed directly for this study based on qualitative research with this population as well as the existing literature. Women were grouped as either adolescents (ages 13–20) or young adults (ages 21–25) for study purposes.

**Setting**—Two community-based outpatient clinics on Chicago's West Side.

**Participants**—Non-pregnant Latina females between 13–25 years of age.

**Main Outcome Measures**—Comparison of familial, cultural and psychosocial factors associated with use of effective contraception using bivariate and multivariable analyses.

**Results**—Final analysis included 267 participants. Multivariable models yielded three factors found to be statistically significant predictors of effective contraception use, but only one was significant for both age groups. Number of children was a strong predictor of effective contraceptive use among both Latina adolescents and young adults (P < 0.001 for adolescents and P = 0.049 for young adults). Partner communication predicted effective contraceptive use among Latina adolescents (P = 0.001). Acculturation level strongly predicted effective contraceptive use among Latina young adults (P < 0.001).

**Conclusions**—Findings demonstrate the need to tailor messages to Latina adolescent and young adults to reduce unintended pregnancy. Interventions to improve effective contraceptive use among Latina adolescents should promote effective forms of contraception in conjunction with communication with their partners about birth control. In contrast, efforts to address unintended pregnancy among Latina young adults should be sensitive to degree of acculturation.

#### **Keywords**

Contraception; Acculturation; Contraceptive decision-making; Latinas; Mexican Americans

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# Introduction

Forty-nine percent of the 6.4 million pregnancies that occur in the United States (U.S.) each year are unintended. The unintended pregnancy rate is 51 per 1,000 U.S. women aged 15–44 years. The rate of unintended pregnancy among Latinas is 78 per 1,000, over twice that of non-Hispanic whites. This disparity in rates has many etiologies, but nonuse and misuse of contraception are among the most important contributors. In the 2002 National Survey of Family Growth (NSFG), among Latinas at risk for pregnancy (i.e., sexually active and of reproductive age), 12% reported that they were currently using no method of contraception<sup>2</sup> an increase of 3% from the 1995 NSFG cycle.<sup>3</sup>

Compared to older women, Latina adolescents are at a higher risk of contraceptive nonuse, with nearly 1 in 4 sexually active Latina adolescents aged 15–19 years reporting no contraceptive use. Young Latinas who do use contraception are more likely to use less effective methods compared to older women. In the 2002 NSFG, over one third of contracepting Latinas aged 15–24 years reported condoms or withdrawal as their most commonly used method, while less than 20% of those aged 30 years and over reported relying on these two less effective methods.<sup>3</sup> Despite a clear preference for condoms among Latina adolescents, negotiating consistent use of this male-controlled method can be problematic.<sup>4</sup> A study of 443 women found that, compared to non-Hispanic whites, Latinas were less likely to have used contraception consistently over the previous six months and less likely to report ever-use of a highly effective method of contraception. Latinas were also more likely to report barriers to contraceptive use and to have had an unwanted pregnancy.<sup>5</sup> Similarly, in a qualitative research study, Latina adolescents reported nonuse of effective methods of contraception due to parental disapproval of sexual activity and contraceptive use. Yet following pregnancy, teens reported that contraceptive use was sanctioned.<sup>6</sup>

Culturally relevant messages are one of the hallmarks of effective pregnancy prevention programs. Therefore, understanding factors that influence the use of effective methods of contraception among adolescents and young adults of color is essential for the development of successful, culturally relevant approaches to decreasing unintended pregnancy rates among young Latinas. While comparative studies are valuable for identifying differences in contraceptive behaviors between racial-ethnic groups, this approach is less helpful in understanding the specific cultural factors influencing contraceptive decision-making of adolescents and young adults within specific ethnic backgrounds. Yet, this information is needed because the current literature on Latina contraceptive attitudes and behaviors favors a strong role for psychosocial variables in the contraceptive decision making and behavior of Latina adolescents and young adults, including acculturation (the complex process by which individuals adjust to a new culture)<sup>8</sup> and the influence of peers, partners, parents and personal self-efficacy.

Research findings regarding the association between acculturation, contraceptive use, and pregnancy risk among Latinas in the U.S. have been mixed. Some studies find a positive association between being acculturated and both using effective contraception and having positive attitudes toward hormonal methods. <sup>3,9,10</sup> Other studies suggest that acculturation

has an inverse relationship to positive contraceptive attitudes and effective use. <sup>11</sup> Similarly, while some research links acculturation and risky sexual behavior, <sup>12</sup> other research does not. <sup>13</sup> These conflicting results may indicate heterogeneity within the overall Latino population, and/or inherent difficulties in measuring acculturation. Indeed, the degree to which a person who immigrates adopts and is influenced by the culture into which he or she immigrates is not easily measured, and myriad research instruments have been developed and used to this end. Markers such as length of time in the U.S., place of birth, and primary language have all been used to capture degree of acculturation. Yet these markers can yield conflicting and perplexing results. For example, in a study of Latinas in the U.S., Spanish-speaking women demonstrate more consistent contraception use compared to Latinas who spoke English, which would suggest a negative relationship between acculturation and effective contraceptive use. Yet, among the Spanish-speaking women, increased length of time in the U.S. was associated with more consistent contraception use. <sup>14</sup> Thus, the relationship between acculturation and contraceptive attitudes and behaviors among Latinas remains unclear.

Previous studies have also examined the effect of parent-adolescent communication on sexual outcomes and contraceptive use among Latino adolescents, finding that mother-daughter conversations about sex prior to sexual début can increase condom use at first and most recent intercourse among Latina teens. <sup>15,16</sup> Other investigators have identified specific family-related barriers to hormonal contraceptive use, such as lack of information from parents regarding sex and birth control and moral objections to premarital sexual activity. <sup>4,6</sup> These studies suggest family attitudes and beliefs may play an important role in the use of effective methods of contraception among Latina adolescents.

Other psychosocial factors such as communication about birth control with sexual partners and peers and self-efficacy have been associated with contraceptive use among women in general. <sup>17</sup> In studies specific to young adult Latinas, communication with a sexual partner about contraception and partner involvement in making contraceptive choices were significantly associated with an increased likelihood of using more effective forms of contraception. <sup>18</sup> Contraceptive self-efficacy and perceived social support for contraceptive use have also been identified as positive correlates of effective hormonal contraceptive use. <sup>11</sup> The relationship between these personal, cultural, peer, family, and partner-related factors and contraceptive decision-making among Latina adolescents and young adults requires more investigation.

The purpose of the current study is to better understand the factors influencing use of very effective methods of contraception among Latina adolescents and young adults and the relative contribution of psychosocial factors to contraceptive choices among younger and older Latinas. We compare the interplay of familial, cultural, and psychosocial factors and contraceptive use among Latina early, middle, and late adolescents (age 13–20 years) and young adults (age 21–25 years). Based on the theoretic and empiric literature, our framework examines the influence of the following factors on use of effective methods of contraception among predominantly Mexican-American adolescents and young adults: personal life course factors (i.e., marital status, education, number of children),

acculturation, communication with male partners or peers about birth control, personal autonomy in contraceptive decision-making, and familial attitudes about birth control.

# **Materials and Methods**

# **Survey Instrument**

Prior to survey development, we conducted seven focus groups with participants drawn from the same demographic as the target population for this study, non-pregnant Latinas aged 13 to 25 years. From these sessions and the existing literature, we developed a culturally appropriate multifactorial framework for understanding factors influencing a young Latina's decisions regarding contraceptive use, including personal life course factors, personal autonomy, acculturation, family, peer, and partner influences. We then developed a quantitative survey instrument based on these domains. The survey was first reviewed by experts in the field to verify that it was complete and comprehensive. We pretested the draft study instrument with the target population. These women were asked to evaluate questions with an eye toward relevance, clarity of questions, and time to completion. Interviewers also provided insights on ease of survey administration. The survey was further modified based on information gleaned from pretesting. Survey data were collected from 2003–2005.

# **Study Procedures**

Given that Latinas are a heterogeneous population, we chose to restrict our study to predominantly Mexican American communities. Through flyers, referrals, and word of mouth, we recruited a convenience sample of young Latinas from two community-based outpatient clinics serving predominantly low-income Mexican American patient population on the West side of Chicago. All non-pregnant Latinas aged 13 to 25 years were eligible for participation. Women who did not self-identify as Latina were excluded from the study. For the purpose of the current analysis, we included only adolescents and young adults who had ever had vaginal intercourse and provided complete data regarding contraceptive use history. We administered the survey via face-to-face interview, except for a section on sexuality which was written and self-administered in an effort to decrease potential embarrassment and therefore to increase the accuracy of the responses. A bilingual interviewer administered all surveys. Participants had the option of completing the interview in English or Spanish. Interviews were approximately 20 minutes in length, and participants received \$20 for completing the survey. Written informed consent was obtained from each participant; minors gave written assent in conjunction with parental consent. This research was approved by the Institutional Review Board at the University of Illinois.

#### **Measures**

In the current study, our primary outcome variable "ever use of very effective contraception" was defined as ever having used one or more of the following contraceptive methods considered to be always very effective or effective when used correctly and consistently to prevent unintended pregnancy: intrauterine device (IUD), contraceptive implants, depot medroxyprogesterone acetate injection (Depo-Provera), medroxyprogesterone acetate/ estradiol cypionate (Lunelle Monthly Contraceptive Injection), contraceptive patch, and oral

contraceptive pills (OCPs).<sup>20</sup> The contraceptive vaginal ring was not listed as a response choice on the survey because it was not available for use at the time of data collection.

We measured personal life course variables known to be related to contraceptive use, such as age, marital status, education, and number of children. In addition, our survey measured cultural factors. We asked respondents for their country of birth and included a short, validated, language-based acculturation scale: spoken language preference, language spoken in the home, language spoken as a child, ability to read English.<sup>21</sup> Scores ranged from 0 to 4, with a higher score signifying greater comfort and propensity to use and speak English, which we used as a marker for greater acculturation.

To assess family influence, we asked women about their perceptions of their family's attitudes toward their use of birth control ("Birth control would be looked down upon by family"). This question was measured with a 4-point scale (1 = strongly disagree, 4 = strongly agree). To assess peer influence, we asked about birth control use among peers ("My closest friends use birth control") on a scale of 1-4 (1 = strongly disagree, 4 = strongly agree). Using this same scale, we asked about autonomy in contraceptive decision-making ("I make the ultimate decision to use birth control"). We assessed partner influence by asking about communication with her partner about birth control prior to sex ("I talked to my partner about birth control before sex"). These questions were rated on a 5-point response scale (1 = always, 5 = never).

# **Data Analysis**

We divided the sample to compare early, middle and late adolescents (aged 13-20 years) to young adult women (aged 21-25 years). We used descriptive statistics to evaluate the demographic characteristics of the study participants. Bivariate analyses were performed with chi-square tests or Mantel-Haenszel tests for trend to identify and compare factors associated with ever-use of very effective methods of contraception among adolescents and young adults. Multivariable logistic regression analysis was then used to test associations between independent variables and ever-use of very effective contraception and to control for confounding factors. In the multivariable model, we included age to control for a potential cohort effect. Variables were considered significant if the Wald chi-square test statistic had a P value 0.05. Women with incomplete data were excluded from the final model. Data were analyzed using SPSS Version 16.0 software (SPSS Inc., Chicago, IL).

#### Results

We approached 371 Latina adolescent and young adults at two study sites. Of the 371, 306 (82%) agreed to participate; 65 (18%) either refused participation or did not meet eligibility criteria (i.e., were pregnant and/or non-Latina). Of the 306 women surveyed, 274 reported having vaginal intercourse. Seven of these participants did not provide a complete history of contraceptive use. Thus, a total of 267 participants, 143 adolescents and 124 young adults, were included in the analysis. A majority of Latina young adults (80.6%) and nearly half (51.7%) of adolescents reported ever-use of a very effective method of contraception. Overall, 43% of the entire sample reported use of OCPs, 24% had used injectable contraception, 17% used the contraceptive patch, and 8% reported use of an IUD. None

reported using the contraceptive implant in either age group. Most of the participants were of Mexican descent and US-born. Table 1 describes the demographic characteristics of the study sample.

Odds ratios between the primary outcome variable and the independent variables from the bivariate and multivariable analysis among Latina adolescents and young adults are displayed in Table 2 and Table 3, respectively. Although age was positively associated with ever-use of very effective contraception in the bivariate analysis among Latina adolescents, it was not statistically significant in the multivariable analysis. Factors associated with the outcome variable for Latina adolescents in the multivariable analysis were number of children and partner communication about birth control. For Latina young adults, number of children and acculturation retained strong associations with ever-use of very effective contraception in the multivariable model. No significant associations were found for autonomy, family- and peer-related factors among Latina adolescents or young adults in bivariate or multivariable analyses.

# **Discussion**

This study compares culturally relevant factors associated with ever having used a very effective method of contraception among a cohort of predominantly Mexican-American, sexually active adolescents and young adults. Not surprisingly, for both Latina adolescents and young adults, we found a positive relationship between number of children and use of very effective methods of contraception; however, the magnitude of the effect of family size on contraceptive use was slightly higher among Latina adolescents. This finding suggests Latina adolescents and young adults who already have children may have greater determination to plan or prevent future childbearing and that such resolve may increase with parity. This is consistent with findings from a previous study in which Latina participants explained that initiation of contraceptive use is often delayed until after the birth of a first child due to young adolescents' lack of information about birth control and family/cultural mores proscribing sexual activity and contraceptive use by adolescents.<sup>6</sup> We interpreted this finding to mean that after a Latina bears a child, the stigma associated with contraception diminishes and that acceptability of effective methods may improve; these quantitative findings further support this hypothesis. While number of children may not necessarily be the best proxy for measuring a woman's future pregnancy intention, <sup>22</sup> our study highlights the importance of considering parity in understanding contraception use patterns among Latina adolescents and young adults.

Yet, other factors associated with ever-use of very effective contraceptive methods varied among Latina adolescents and young adults. Discussion of birth control with a partner prior to sex was significantly associated with the use of very effective methods of contraception among Latina adolescents, though not among young adults. Yet, in a previous study of Latinas ages 18–25 years, high levels of personal and partner involvement and willingness to discuss birth control were found to contribute to effective contraception use. <sup>18</sup> Others have suggested that power imbalances in sexual relationships may deter Latina youth from using contraception effectively and increase sexual risk-taking. <sup>23</sup> These studies have focused primarily on condom use and negotiation. Therefore, our study expands the research on

protective benefits of improved power dynamics between an adolescent and her sexual partner to include the use of effective methods of contraception as well as safe sex practices.

Additionally, acculturation was found to have a strong protective effect on effective contraceptive use among Latina young adults but not among adolescents. The relationship between degree of acculturation and use of effective contraception suggests that integration into American culture through acceptance and use of the English language can positively influence contraceptive use among Latina young adults. These findings are consistent with other studies demonstrating that greater acculturation has been linked to protective factors such as increased personal autonomy and control in health care decision-making, as well as improved contraceptive self-efficacy and trust in the effectiveness of hormonal methods of contraception among Latinas. <sup>24–26</sup> Of note, we used a language-based acculturation scale which may be of particular relevance to a study of contraception as adopting an effective method requires a clinical visit, counseling, and communication of large amounts of information. Language may pose a particular barrier to contraceptive care.

Limitations to this study must be considered. First, we are unable to make causal inferences due to the cross-sectional study design. Second, given the heterogeneity of Latino subgroups, we chose to target recruitment to Mexican-American neighborhoods and thus our findings cannot be generalized to all Latino subgroups. Third, we asked adolescents and young women to self-report on sensitive behaviors rather than corroborating histories with clinical records, which may have affected the accuracy of their responses. In an effort to minimize self-report bias, we used gender-matched bilingual interviewers who emphasized the anonymous nature of the survey, administering the survey in a private location allowing young women to complete sensitive questions about sexuality on their own and without their parents. Fourth, acculturation is a multidimensional construct involving numerous variables, such as length of time in the US and ongoing contact with country of origin. The scale used in the current study uses language as a proxy, and a more multi-dimensional scale may have provided additional insight. Yet, the use of language-based acculturation scales is common in contraceptive research. Thus, our measure of degree of acculturation is comparable to other studies in this area. 9,11,27 Similarly, because our sample was drawn from communitybased clinical settings, our findings may not be applicable to Latinas who do not seek heath care or who seek health care in a nonclinical setting.

This study reflects the attitudes of a subset of Latina adolescent and young adults regarding their role in their own reproductive health, as well as their relationships with sexual partners. While most studies take a risk-based approach to understanding contraceptive behaviors, this study sheds light on cultural factors associated with use of very effective methods of contraception among Latina adolescents and young adults. Our study also uniquely combined qualitative and quantitative techniques to explore the varying roles that personal life course, autonomy, acculturation, family, peer, and partner factors play in the contraceptive practices of young Latinas. Contrary to our prediction that family and peer influences play an important role in use of effective forms of birth control, we found that these factors may have less influence than factors such as acculturation, family size, partner communication and support. Given the other differences in predictor variables, our findings demonstrate the importance of tailoring messages with the recognition that the messages

may need to be different for each group. Efforts to address unintended pregnancy among Latina young adults should address barriers to contraceptive uptake posed by acculturation and language.

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# References

- 1. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. Perspect Sex Reprod Health. 2006; 38:90. [PubMed: 16772190]
- 2. Mosher WD, Martinez GM, Chandra A, et al. Use of contraception and use of family planning services in the United States: 1982–2002. Advance Data. 2004; 350:1.
- Frost, J.; Driscoll, A. Occasional Report No. 19. New York: Guttmacher Institute; 2006. Sexual and reproductive health of U.S. Latinas: A literature review. Available: http://www.guttmacher.org/pubs/ 2006/02/07/or19.pdf [Accessed January 29, 2008]
- Gilliam M. The role of parents and partners in the pregnancy behaviors of young Latinas. Hisp J Behav Sci. 2007; 29:50.
- 5. Sangi-Haghpeykar H, Ali N, Posner S, et al. Disparities in contraceptive knowledge, attitude and use between Hispanic and non-Hispanic whites. Contraception. 2006; 74:125. [PubMed: 16860050]
- Gilliam ML, Warden MM, Tapia B. Young Latinas recall contraceptive use before and after pregnancy: A focus group study. J Pediatr Adolesc Gynecol. 2004; 17:279. [PubMed: 15288030]
- 7. Kirby BD. Understanding what works and what doesn't in reducing adolescent sexual risk-taking. Fam Plann Perspect. 2001; 33:276. [PubMed: 11804437]
- 8. Abraido-Lanza AF, Armbrister AN, Florez KR, et al. Toward a theory-driven model of acculturation in public health research. Am J Public Health. 2006; 96:1342. [PubMed: 16809597]
- 9. Brown J, Villarruel A, Oakley D, et al. Exploring contraceptive pill taking among Hispanic women in the United States. Health Educ Behav. 2003; 30:663. [PubMed: 14655862]
- Norris AE, Ford K. Condom beliefs in urban, low income, African American and Hispanic youth. Health Educ Q. 1994; 21:39. [PubMed: 8188492]
- 11. Unger JB, Molina GB. Contraceptive use among Latinas: social, cultural, and demographic correlates. Womens Health Issues. 1998; 8:359. [PubMed: 9846120]
- 12. Singh S, Darroch JE. Adolescent pregnancy and childbearing: levels and trends in developed countries. Fam Plann Perspect. 2000; 32:14. [PubMed: 10710702]
- Brindis C, Wolfe AL, McCarter V, et al. The associations between immigrant status and riskbehavior patterns in Latino adolescents. J Adolesc Health. 1995; 17:99. [PubMed: 7495832]
- Romo LF, Berenson AB, Segars A. Sociocultural and religious influences on the normative contraceptive practices of Latino women in the United States. Contraception. 2004; 69:219. [PubMed: 14969670]
- 15. Miller K, Kotchick B, Dorsey S, et al. Family communication about sex: what are parents saying and are their adolescents listening? Fam Plann Perspect. 1998; 30:218. [PubMed: 9782044]
- Whitaker DJ, Miller KS, May DC, et al. Teenage partners' communication about sexual risk and condom use: the importance of parent-teenager discussions. Fam Plann Perspect. 1999; 31:117. [PubMed: 10379427]
- Forrest JD, Frost JJ. The family planning attitudes and experiences of low-income women. Fam Plann Perspect. 1996; 28:246. [PubMed: 8959414]
- 18. Harvey SM, Henderson JT, Casillas A. Factors associated with effective contraceptive use among a sample of Latinas. Women Health. 2006; 43:1.
- Presser S, Couper M, Lesserler J, et al. Methods for testing and evaluating survey questions. Public Opin Q. 2004; 28:109.

20. Trussell, J. Contraceptive efficacy. In: Hatcher, RA.; Trussell, J.; Nelson, AL., et al., editors. Contraceptive Technology. 19th rev. Montvale, NJ: Physicians' Desk Reference; 1998. p. 747-826.

- Deyo RA, Diehl AK, Hazuda H, et al. A simple language-based acculturation scale for Mexican Americans: validation and application to health care research. Am J Public Health. 1985; 75:51.
  [PubMed: 3966599]
- 22. Santelli J, Rochat R, Hatfield-Timajchy K, et al. The measurement and meaning of unintended pregnancy. Perspect Sex Reprod Health. 2003; 35:94. [PubMed: 12729139]
- 23. Amaro H, Morrill AC, Dai J, et al. Heterosexual behavioral maintenance and change following HIV counseling and testing. J Health Psychol. 2005; 10:287. [PubMed: 15723897]
- 24. Castro F, Furth P, Karlow H. The health beliefs of Mexican, Mexican-American, and Anglo-American women. Hisp J Behav Sci. 1984; 6:365.
- 25. Ford K, Norris AE. Urban Hispanic adolescents and young adults: Relationship of acculturation to sexual behavior. J Sex Res. 1993; 30:316.
- 26. Leaper C, Valin S. Predictors of Mexican American mothers and fathers attitudes toward gender equality. Hisp J Behav Sci. 1996; 18:343.
- 27. Unger JB, Molina GB. Acculturation and attitudes about contraceptive use among Latina women. Health Care Women Int. 2000; 21:235. [PubMed: 11111468]

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 $\label{eq:Table 1} \textbf{Table 1}$  Descriptive Characteristics of the Study Sample (N = 267)

	Ages 13–20 N = 143 %	Ages 21–25 N = 124 %
Birth control use		
Ever-use of highly effective contraception	51.7	80.6
Intrauterine Device	4.2	12.1
Depo Provera/Lunelle	17.5	30.6
Patch	20.3	13.7
Oral Contraceptive Pill	28.0	59.7
Condom-only or no birth control used	48.3	19.4
Age (median)	19	23
Place of birth		
United States (excluding Puerto Rico)	67.1	75.0
Mexico	32.2	21.0
Puerto Rico	0	1.6
South America	0	1.6
Central America	0	0.8
Other	0.7	0
Country of origin		
Mexican	88.1	80.6
Puerto Rican	7.0	6.5
Other	4.9	12.9
Highest level of education completed		
Grade School	12.6	8.9
Some High School	46.9	15.3
High School	18.9	24.2
Some College	21.7	41.1
College	0	10.5
Marital status		
Single	56.6	44.4
Living w/partner	30.8	21.0
Married	12.6	31.5
Widowed	0	0.8
Separated	0	0
Divorced	0	2.4
Religious upbringing		
Roman Catholic	93.0	84.7
Protestant	0.7	0
Christian (Other)	4.2	8.9
Other	1.4	3.2
No Religion	0.7	3.2

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Ages 13–20 N = 143 % Ages 21–25 N = 124 % Number of children 50.3 29.8 42.7 30.6 2 6.3 28.2 3 0.7 8.9 4 2.4 0 Employed outside of the home No 63.6 39.5 60.5 Yes 36.4 Annual household income\* Under \$6000 9.2 8.9 \$6001-10000 11.3 12.1 \$10001-15000 12.0 13.7 \$15001-20000 9.2 14.5 \$20001-30000 11.3 19.4 \$30001 and over 8.5 18.5 Not Sure 38.7 12.9 Number of dependents \*(people who lived off household income) 0 5.6 2 21.0 12.0 3 27.4 23.9 4 23.2 25.8 40.8 20.2 More than 4 Covered by health insurance No 32.9 23.4 67.1 76.6 Yes

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<sup>\*</sup>Data missing for 1 participant.

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Bivariate Odds Ratios and 95% Confidence Intervals between Model Variables and Ever-use of Very Effective Contraception (vs condoms only/nothing) among Latina adolescents (ages 13-20) and young adults (ages 21-25)

Factor	Adolescents $(N = 143)$	p q	p a Young Adults (N = 124)	p q	p  b
Current Age	1.32 (1.04, 1.67)	0.021	0.021 0.89 (0.66, 1.21)	0.463	0.416
Education	0.96 (0.82, 1.14)	0.649	0.649 0.97 (0.80, 1.18)	0.781	0.142
Married	2.03 (0.72, 5.75)	0.182	1.14 (0.43, 3.03)	0.788	<0.001
Number of Children	5.76 (2.91, 11.41)	<0.001	1.77 (1.08, 2.92)	0.025	<0.001
Acculturation score	0.99 (0.71, 1.37)	0.931	4.84 (2.32, 10.10)	<0.001	0.140
Foreign-born	1.24 (0.61, 2.50)	0.550	0.550 0.37 (0.15, 0.96)	0.040	0.005
Negative family attitudes toward birth control	0.75 (0.38, 1.46)	0.390	0.94 (0.37, 2.43)	0.900	0.003
Peer use of birth control	1.11 (0.54, 2.26)	0.785	0.86 (0.34, 2.16)	0.746	0.115
Communication w/partner about birth control before intercourse	2.54 (1.25, 5.17)	0.010	2.33 (0.94, 5.78)	0.067	0.892
Feeling of personal control over birth control decisions	1.18 (0.589, 2.38)	0.638	0.638 2.00 (0.75, 5.33)	0.166	<0.001

 $<sup>^{\</sup>it a}P$  value for individual odds ratios.

 $<sup>\</sup>ensuremath{b_{\mathrm{P}}}$  value for differences between odds ratios for adolescents and young adults.

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# Table 3

Odds ratios and 95% Confidence Intervals from Multivariate analysis between Model Variables and Ever-use of Very Effective Contraception (vs condoms only/nothing) among Latina adolescents (ages 13-20) and young adults (ages 21-25)

Factor	Adolescents $(N = 143)$	p q	p a Young Adults (N = 124)	p q	p  b
Current age	1.22 (0.84, 1.76)	0.298	0.298 1.02 (0.69, 1.51)	0.917	0.524
Education	1.01 (0.79, 1.30)	0.926	0.926 1.16 (0.86, 1.57)	0.336	0.494
Married	1.22 (0.29, 5.13)	0.784	0.784 1.29 (0.37, 4.45)	0.686	0.956
Number of children	7.83 (3.25, 18.91)	<0.001	2.27 (1.00, 5.11)	0.049	0.046
Acculturation score	1.02 (0.67, 1.56)	0.917	5.70 (2.26, 14.34)	<0.001	<0.001
Foreign-born	0.95 (0.38, 2.34)	0.907	1.10 (0.29, 4.24)	0.887	0.851
Negative family attitudes toward birth control	0.84 (0.37, 1.94)	0.684	2.21 (0.57, 8.59)	0.254	0.224
Peer use of birth control	0.95 (0.40, 2.26)	0.914	1.06 (0.29, 3.86)	0.927	0.888
Communication w/partner about birth control before intercourse	5.40 (2.07, 14.13)	0.001	2.71 (0.79, 9.37)	0.115	0.384
Feeling of personal control over birth control decisions	1.25 (0.52, 2.98)	0.621	0.621 2.60 (0.65, 10.41)	0.177	0.366

 $<sup>^{\</sup>it a}P$  value for individual odds ratios.

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 $<sup>^{\</sup>it b}$  P value for differences between odds ratios for adolescents and young adults.