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Identification and Characterization of Adolescents' Sexual Boundaries

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Abstract

Purpose—Adolescents' decisions to have sex may be based on a priori boundaries placed on sex. This study addresses: (1) to what extent adolescents set vaginal sexual boundaries; (2) the types of sexual boundaries most and least likely to be endorsed; and (3) to what extent sexual boundaries vary by sex, race/ethnicity, and sexual experience.

Methods—A cross-sectional study of 518 students attending 10th grade. Survey measures queried about demographics, ever having sex, and existence of sexual boundaries (e.g., being in love, having an attractive partner) that must be in place before having vaginal sex.

Results—The most frequently endorsed boundaries were maturity, commitment, trust, love, and marriage. These boundaries were more frequently endorsed than having a safer-sex method. Compared to females, males were more likely to choose boundaries based on partner attractiveness ($p<.001$) and avoiding trouble ($p<.04$). Compared to Asians and Pacific Islanders, Whites were more likely to endorse wanting to be a certain age to have sex ($p<.01$ and $p<.05$, respectively); Asians and Pacific Islanders were more likely to choose sexual boundaries based on marriage ($p's<.05$). Adolescents who were sexually experienced were more likely than inexperienced adolescents to endorse boundaries related to relationship characteristics and partner attractiveness ($OR=2.5$), and less likely to endorse boundaries related to feeling mature ($OR=0.34$) and waiting until marriage ($OR=0.34$).

Conclusions—Identifying adolescents' sexual boundaries should assist healthcare professionals better understand under what circumstances adolescents are more or less likely to have sex; and this information should ultimately inform the development of new interventions.

Keywords

adolescents; sexuality; decision-making; sexual behavior; vaginal sex; boundaries; sexual intentions

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Introduction

Researchers and healthcare providers have spent decades investigating factors that influence adolescents' decisions to engage in sexual behavior. As rates of condom usage continue to be lower than desired, and rates of teenage pregnancy and sexually transmitted infections (STIs) among adolescents remain elevated,¹ the relevance of this question intensifies. Recent data show that during high school, 46% of adolescents have initiated vaginal sex and 61% of sexually active high school students reported using a condom during their most recent sexual intercourse.² Adolescents are more likely to have vaginal sex if they experience oral sex earlier in high school.³ African-American and Latino adolescents are more likely to engage in sexual behavior during high school, and are at increased risk for pregnancy and STIs.¹ Given these rates of sexual activity and related negative outcomes, it is critical to identify factors that influence adolescents' sexual decision-making.

Theories of health-related decision-making⁴⁻⁹ and a systematic literature review of sexual behavior¹⁰ indicate that intentions (defined as conscious planning) to have sex in the near future are among the most important proximal predictors of sex.^{4,9,10} Research identifying factors that influence intentions to have sex typically focus on attitudes and social norms (e.g., perceived number of teens having sex; perceived chance of contracting an STI).¹¹⁻¹³ There is also a set of literature examining adolescents' motivations or reasons for having or not having sex.¹⁴⁻¹⁷ For example, Eyre and Millstein's (1999) qualitative study identified adolescents' core reasons for engaging in sexual intercourse: having an available and attractive partner, positive partner attributes, love for a partner, and the availability of condoms.¹⁴ Cooper et al. (1998) developed a multi-dimensional model describing young adults' motivations for sex, which included intimacy, enhancement (i.e., physical pleasure), coping, and approval.¹⁵ Patrick and Lee (2010) showed that these same sexual motivations were related to first year college students' subsequent behavior.^{16,17}

Little is known about the specific situational or contextual circumstances that adolescents believe must be in place in order to have vaginal sex. A notable exception is a qualitative assessment of adolescents' decision-making¹⁸ that utilized a very small subset of participants from the larger sample included in the current study. Michels and colleagues showed that adolescents articulated a number of affective, emotional, situational and contextual limits they place on sexual behavior; the adolescent participants referred to these limitations as "sexual boundaries."¹⁸

No study has replicated and extended Michels' qualitative findings¹⁸ to a larger quantitative assessment of boundaries. More specifically, studies have not identified, characterized, or quantified types of sexual boundaries that adolescents may hold. Further, studies have not determined whether the existence or characteristics of sexual boundaries vary by gender, race/ethnicity, or prior sexual experience. Understanding these limitations or boundaries that adolescents place on having vaginal sex has the potential to provide insight into adolescents' sexual decisions that goes beyond just understanding intentions or motivations to having sex. Such information on boundaries may be used to assist healthcare professionals in providing more focused interventions to postpone early sexual activity and promote safer sex methods.

To address the gap in our current understanding of sexual boundaries, this study addresses the following questions: (1) To what extent do adolescents set vaginal sexual boundaries? (2) Which types of vaginal sexual boundaries are the most/least likely to be endorsed? (3) To what extent do boundaries vary by sex, race/ethnicity, and prior sexual experience? We hypothesize that (1) the majority of adolescents set sexual boundaries, (2) females will be more likely to set boundaries related to relationship characteristics than will males, and (3)

adolescents who have had previous sexual experience, including only oral sex, will set less restrictive boundaries on future sexual experiences.

Methods

This cross-sectional study utilizes data from a larger longitudinal prospective investigation of adolescents' perceptions of and engagement in sexual behavior. Data collection occurred every six months, beginning when the students started the 9th grade in 2002 and ending at the completion of 11th grade in 2005. The current study utilizes data from the third wave of data collection (students entering 10th grade) when questions about sexual boundaries were first asked. The study was approved by the Institutional Review Board at the University of California, San Francisco.

Participants

In the autumn of 10th grade, students were on average 15 years of age ($SD = 0.37$); 59% of the sample was female. Participants reported racially/ethnically diverse backgrounds: 41.3% White, 29.3% Latino, 20.9% Asian and 8.5% Pacific Islanders; see Table 1. African-American participants were excluded from our analyses due to a very small sample size ($n = 12$ at Wave 3). Compared to Asians, Pacific Islanders reported a higher frequency of oral and vaginal sex. Thus, while other studies often combine these groups, our analyses kept them separate. Prior sexual experience of the study participants consisted of 10.7% having had only oral sex, 4.4% having had only vaginal sex, and 16.5% having had both vaginal and oral sex. The total rate of sexual experience for all of the participants was 31.6%, which is similar to national and state prevalence rates for this age group.^{1,2} Approximately 41% of the participants' mothers had a college degree or higher, and 33% considered themselves to be somewhat or very religious (Table 1).

Procedures

Participants were recruited from mandatory 9th grade classes in two Northern California public high schools in the autumn of 2002. Researchers offered enrollment in the study to all students except those who were in special education classes. Initially, 1180 students received consent packets and 665 (56%) students returned signed parental consent forms and assent forms. Written parental permission and adolescent assent were obtained prior to participation in the study. At the first wave of data collection, 637 students (96% of the eligible sample) completed self-administered surveys. Of the 637 original students enrolled in the study, 518 (81%) completed the survey at wave 3 (for more information, see references 3, 19, 20). Participants in the study were demographically similar to the overall population of students in the two schools; however, statistical tests could not be conducted because raw data for the entire school population were not available. Participants who completed Wave 3 were not different from those who dropped out of the study before Wave 3 based on gender, race/ethnicity, religiosity, and mother's education ($p's < .05$).

Measures

Demographic characteristics—Participants reported their age, grade, gender, race/ethnicity, level of mothers' education, and level of religiosity.

Sexual Activity—Participants answered dichotomously scored (yes/no) questions pertaining to whether they had ever had oral sex with a casual or main partner and if they had ever had vaginal sex with a casual or main partner. For the purposes of our analyses, having oral sex with a casual partner or a main partner was combined into one variable denoting ever having oral sex. The same was done for vaginal sex.

Vaginal Sexual Boundaries—Based on results reported by Michels et al.,¹⁸ participants were first provided with the following definition of sexual boundaries: “Setting limits with your partner about what you are willing to do sexually.” The survey instructions included an acknowledgment that “some people think about and have set their own sexual boundaries, while others have not.” After reading the definition, participants were asked if they had ever thought about sexual boundaries (yes/no). Participants were then asked to choose which condition(s) MUST be in place before they would have vaginal sex. They were given a list of 13 boundaries for vaginal sex and could check any or all that apply, none, or write in their own response (see Table 2 for specific boundaries queried). The qualitative data gathered from Michels and colleagues’ study aided in the development of these boundaries items.¹⁸

Data Analysis

All analyses were conducted using SPSS version 18. Descriptive analyses were used to determine the frequency of sexual activity by sex and race/ethnicity and the frequency of each sexual boundary. Chi-square analyses were used to compare vaginal sex boundaries between males and females, and among different racial and ethnic groups. Logistic regression was used to test whether level of sexual experience (no sexual experience, vaginal sexual experience, oral sexual experience, both oral and vaginal sexual experience) was related to self-reported sexual boundaries. “No sexual experience” was selected as the reference category. Analyses were performed controlling for gender and race/ethnicity. However, given that there was no difference between the adjusted and crude ORs, the crude ORs are presented.

Results

Adolescents’ Sexual Boundaries

The majority of participants (70%) indicated that they had thought about sexual boundaries, with significantly more females than males considering such boundaries (80.8% vs. 55.8%, respectively, $p < .001$). The likelihood of having a sexual boundary did not vary between participants who had and not had previous sexual experience.

Table 2 shows the percentage of participants who endorsed each sexual boundary overall and by gender. The five most frequently endorsed sexual boundaries were maturity, commitment, trust, love, and marriage. The least endorsed sexual boundaries were being a certain age (16.8%), the length of the relationship (15.6%), having sex at any opportunity (10.3%), and never having sex (3.7%). Boundaries of If no one will find out, having an attractive partner, avoiding getting into trouble, and having a safer sex method available were endorsed by 17.6%, 24.1%, 24.9%, and 38.3% of the participants, respectively.

Gender Differences in Sexual Boundaries

Table 2 displays a complete set of the results from chi-square analyses testing for sex differences in the endorsement of each boundary. Compared to females, males were more likely to endorse sexual boundaries based on partner attractiveness ($p < .001$) and if they would avoid getting into trouble ($p < .04$); males were also more likely to endorse having sex at any opportunity ($p < .001$). Females’ boundaries were more frequently based on relationship characteristics (e.g., in love) and level of maturity. Males and females were equally likely to endorse the availability of a safer sex method as a prerequisite for having vaginal sex ($p > 0.1$).

Racial/ethnic Differences in Sexual Boundaries

Table 3 displays racial/ethnic differences and similarities in vaginal sexual boundaries. For the 13 possible boundaries for vaginal sex, only two boundaries differed significantly by ethnic/racial background. Asians and Pacific Islanders were more likely to endorse marriage as necessary for having vaginal sex than were White adolescents ($p < .05$). Conversely, white adolescents were more likely to endorse wanting to have vaginal sex at a certain age than Asians and Pacific Islanders ($p < .01$ and $p < .05$, respectively).

Prior Sexual Experience as it Relates to Sexual Boundaries

Table 4 displays the results of logistic regression analyses predicting sexual boundaries from level of sexual experience (vaginal sex only, oral sex only, and both vaginal and oral sex) using no sexual experience as the reference group. Adolescents who had any prior sexual experience were less likely to say they would wait to have vaginal sex until marriage compared to sexually inexperienced participants (ORs = 0.38, 0.43, and 0.34, for vaginal sex, oral sex, and both, respectively). Adolescents who had vaginal sex or both vaginal and oral sex were more likely than sexually inexperienced adolescents to report that they would engage in vaginal sex at any opportunity (ORs = 9.59 and OR = 5.89, respectively). Adolescents who had oral sex or both oral and vaginal sex were more likely than sexually inexperienced adolescents to report that they would engage in vaginal sex if their relationship was a certain length of time (ORs = 3.21 and 2.67, respectively), they were in a committed relationship (ORs = 3.26 and 1.75, respectively), or they trusted their partner (ORs = 3.77 and 2.14, respectively). Participants who had both oral and vaginal sex reported that they would engage in sex if their partner were attractive (OR = 2.5); yet they were less likely to indicate that they would have to feel mature to handle the consequence of sex (OR = 0.34). Participants who only had oral sex reported that they would engage in vaginal sex if they were a certain age and if they were in love with their partner (OR = 3.22 and 2.12, respectively).

Discussion

While studies have identified motivations or reasons for having sex, to our knowledge, this is the first study to identify and characterize specific limitations or circumstances that adolescents hold as necessary in order to have vaginal sex. Our findings indicate that adolescents do set sexual boundaries, with boundaries varying from emotional to situational limits on sex. Similar to other studies,^{14,15,18,21} adolescents were most likely to report boundaries that were related to emotional closeness such as being in love with your partner, trusting your partner, commitment, and ultimately marriage. Adolescents also reported that they would have sex if they were mature enough to handle the consequences of sex. Fewer participants set quantifiable limits, such as believing you needed to be a certain age or in a relationship for a particular length of time before having sex. Additionally, fewer participants endorsed situational boundaries, such as whether a safer sex method was available.

Our study showed that having a safer sex method available was less frequently endorsed as a necessary condition for sex than boundaries related to relationship closeness. This has public health implications for safe sex practices. This finding is related to a body of literature showing that when partners are in loving and committed relationships they often feel that using a safer sex method is unnecessary. Prior studies have shown that some adolescents feel that using condoms in this situation denotes a lack of trust in one's partner.^{10,22,23}

Overall, males and females endorsed similar boundaries, with both having the same top four boundaries: marriage, love, trust, and maturity. However, some sex differences were noted.

Females were more likely to endorse boundaries related to emotional closeness in a relationship compared to males. Males more frequently endorsed boundaries that were concrete and related to the present, such as being more willing to have sex if they would avoid getting into trouble and if their partner was attractive. Similar to Michels' findings,¹⁸ compared to females, males were more concrete and less concerned with how their sexual activity is dependent on their relationship status compared to females. Prior research has shown that females are more likely to engage in sex to improve intimacy in a relationship while males are more likely to partake in sex to experience pleasure.^{4,21} Interestingly, based on our findings both males and females want to engage in sex in the context of a relationship.

With two exceptions, types of sexual boundaries set did not generally vary among racial/ethnic groups. The two important exceptions were that Asians and Pacific Islanders were more likely to endorse waiting until marriage to have sex, compared to Whites; and Whites were more likely to want to have sex at a certain age compared to Asians and Pacific Islanders. Waiting until marriage to have sex may be a concept that originates from Pacific Islander and Asian cultures.²⁴ There were many similarities among sexual boundaries across racial/ethnic groups, including the number of adolescents who endorsed the different relationship characteristics and wanting a safer sex method available in order to have sex. This finding is supported by prior research that has shown that Asian American/Pacific Islander adolescents are just as likely as other youth to have unprotected sex once they became sexually active.^{25–27} Interestingly, Latinos did not have significantly different boundaries compared to other racial/ethnic groups even though research has shown that Latinos are more likely to engage in sex during high school compared to other racial/ethnic groups,² although this was not the case in our sample. Further research is needed to explore these findings.

Sexual experience also appears to play a role in the types of boundaries adolescents set. Adolescents who had prior oral sexual experiences or oral and vaginal sexual experiences were more likely to endorse boundaries related to relationship characteristics (finite and emotional closeness) and partner attractiveness than sexually inexperienced adolescents.²⁸ Adolescents who reported only having had oral sex possessed significantly different vaginal sexual boundaries than adolescents who had never had sex. Sexually experienced individuals (including those who only had oral sex) were less likely to indicate wanting to wait until marriage to have sex. Having prior experience with oral sex may indicate that adolescents are planning to engage in vaginal sex prior to marriage. Previous research has shown that having oral sex early in high school predicts earlier onset of vaginal sex.^{3,19} Similarly, adolescents who are sexually experienced do not endorse needing to be mature enough to handle the consequences of sex compared to sexually inexperienced adolescents'. This result suggests that adolescents who are sexually experienced may already believe they are mature enough to handle the possible outcomes, or alternatively they do not believe this is a necessary boundary for sex. The vaginal sex group was more likely to say they would have vaginal sex at any opportunity. It is possible that this group is not having vaginal sex in the context of a relationship. If this is the case, then these sexual experiences are likely more casual, making the value of the emotional closeness between the two partners less important.

There were a number of limitations in this study. Most importantly, despite our provision of the definition of "sexual boundaries" on the survey, it is not possible to determine how participants interpreted sexual boundaries. Second, adolescents were not asked about actual boundaries but instead were asked about hypothetical scenarios. Still, it is important to note that these hypothetical scenarios originated directly from qualitative data wherein adolescents described actual boundaries they set during actual sexual experiences.¹⁸ Third, it is unclear whether adolescents will actually hold to these boundaries when future sexual

opportunities occur. Future research is needed to explore if adolescents' boundaries are consistent with future sexual behavior. Fourth, a small sample of participants from different racial and ethnic groups enrolled in the study sample. Therefore, the Pacific Islander subgroup is substantially smaller compared to the other groups and African Americans could not be included in the analysis due to a very small sample size. Similarly, due to the small subgroups, interaction terms could not be included in the analyses to test whether the relationship between boundaries and race/ethnicity varied by sexual experience, gender, religiosity, or other demographic or experiential variables. Gender and religiosity could account for some of the differences in the boundary results related to waiting until marriage to have sex. Future research is needed to better understand sexual boundaries by race/ethnicity. Finally, this was a convenience sample from two public high schools in Northern California. The results are not necessarily generalizable to the rest of the United States.

Despite the limitations outlined above, this study provides novel and important insight into adolescents' vaginal sexual boundaries and how sexual boundaries differ by gender, race/ethnicity, and sexual experience. The majority of adolescents considered sexual boundaries prior to having sex. The most commonly endorsed boundaries were related to emotional closeness in a relationship and being mature enough to handle the consequences of sex. Adolescents with prior sexual experience, including adolescents who have only had oral sex, held different future sexual boundaries than sexually inexperienced adolescents. Findings from this study are expected to assist healthcare professionals and investigators better understand what shapes adolescents' sexual decision-making beyond just measuring willingness, motivations or intentions to engage in sexual activity. Ultimately, the results from this study should be used to develop interventions that focus on specific factors involved in adolescent sexual decision-making and sexual limit-setting. Healthcare providers should encourage adolescents to discuss their specific boundaries with their partners prior to having sex.¹⁸ In clinical practice most safer sex counseling consists of statements about prolonging sexual debut and use of safer sex methods. Most interventions are not conducted in a way that is meaningful to young people. It is imperative that we provide safer sex prevention in a manner that is congruent with adolescents' thoughts and emotions, which may be very different for sexually inexperienced adolescents who are contemplating initiating sex compared to sexually experienced adolescents. Findings from this paper can help guide two different types of interventions. (1) To delay the onset of sexual initiation or sexual activity with a new partner, healthcare practitioners can provide prevention messages that focus on the importance of being in a committed and trusting relationship with their partner before engaging in sex. They can take this opportunity to determine how the adolescent defines a committed relationship and they can provide education about healthy relationships. (2) To promote the use of safer sex methods, healthcare practitioners can attempt to identify who is likely to engage in sexual activity in the near future based on adolescents' relationship boundaries. The practitioner would then specifically focus on the use of a safer sex method in the context of the relationship boundary provided. Regardless of the specific intervention developed, understanding the circumstances or boundaries that trigger adolescents to engage or refrain from sex could enable healthcare providers to embed their messages within contextual examples that better align with adolescents' actual beliefs.

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Abbreviations

STI	Sexually Transmitted Infection
VS	Vaginal Sex
OS	Oral Sex
A	Asian
PI	Pacific Islander
L	Latino
W	White
OR	Odds Ratio

References

1. Child trends data bank. Updated 2006.
2. CDC. Youth risk behavior surveillance—United States, 2009. *MMWR*. 2010; 59(SS-5):1–142.
3. Song AV, Halpern-Felsher BL. Predictive relationship between adolescent oral and vaginal sex: Results from a prospective, longitudinal study. *Archives of Pediatrics and Adolescent Medicine*. 2011; 165(3):243. [PubMed: 21041589]
4. Armitage CJ, Talibudeen L. Test of a brief theory of planned behaviour-based intervention to promote adolescent safe sex intentions. *Br J Psychol*. 2010; 101(Pt 1):155–172. [PubMed: 19364444]
5. Munoz-Silva A, Sanchez-Garcia M, Nunes C, Martins A. Gender differences in condom use prediction with theory of reasoned action and planned behaviour: The role of self-efficacy and control. *AIDS Care*. 2007; 19(9):1177–1181. [PubMed: 18058403]
6. Pomeroy EA, Gibbons FX, Reis-Bergan M, Gerrard M. From willingness to intention: Experience moderates the shift from reactive to reasoned behavior. *Pers Soc Psychol Bull*. 2009; 35(7):894–908. [PubMed: 19429884]
7. Rivers SE, Reyna VF, Mills B. Risk taking under the influence: A fuzzy-trace theory of emotion in adolescence. *Dev Rev*. 2008; 28(1):107–144. [PubMed: 19255597]
8. Gibbons FX, Houlihan AE, Gerrard M. Reason and reaction: The utility of a dual-focus, dual-processing perspective on promotion and prevention of adolescent health risk behaviour. *Br J Health Psychol*. 2009; 14(Pt 2):231–248. [PubMed: 19026095]
9. Halpern-Felsher BL, Cauffman E. Costs and benefits of a decision: Decision-making competence in adolescents and adults. *Journal of Applied Developmental Psychology*. 2001; 22(3):257–273.
10. Marston C, King E. Factors that shape young people's sexual behaviour: A systematic review. *Lancet*. 2006; 368(9547):1581–1586. [PubMed: 17084758]
11. Kinsman SB, Romer D, Furstenberg FF, Schwarz DF. Early sexual initiation: The role of peer norms. *Pediatrics*. 1998; 102(5):1185–1192. [PubMed: 9794952]
12. Borges AL, Nakamura E. Social norms of sexual initiation among adolescents and gender relations. *Rev Lat Am Enfermagem*. 2009; 17(1):94–100. [PubMed: 19377813]
13. Wallace SA, Miller KS, Forehand R. Perceived peer norms and sexual intentions among African American preadolescents. *AIDS Educ Prev*. 2008; 20(4):360–369. [PubMed: 18673068]
14. Eyre SL, Millstein SG. What leads to sex? adolescent preferred partners and reasons for sex. *J Res Adolesc*. 1999; 9(3):277–307. [PubMed: 12349691]
15. Cooper ML, Shapiro CM, Powers AM. Motivations for sex and risky sexual behavior among adolescents and young adults: A functional perspective. *J Pers Soc Psychol*. 1998; 75(6):1528. [PubMed: 9914665]
16. Patrick ME, Lee CM. Sexual motivations and engagement in sexual behavior during the transition to college. *Arch Sex Behav*. 2010; 39(3):674–681. [PubMed: 19067151]

17. Patrick ME, Maggs JL, Cooper ML, Lee CM. Measurement of motivations for and against sexual behavior. *Assessment*. 2010
18. Michels TM, Kropp RY, Eyre SL, Halpern-Felsher BL. Initiating sexual experiences: How do young adolescents make decisions regarding early sexual activity? *J Res Adolesc*. 2005; 15(4): 583–607.
19. Halpern-Felsher BL, Cornell JL, Kropp RY, Tschann JM. Oral versus vaginal sex among adolescents: Perceptions, attitudes, and behavior. *Pediatrics*. 2005; 115(4):845–851. [PubMed: 15805354]
20. Brady SS, Halpern-Felsher BL. Adolescents' reported consequences of having oral sex versus vaginal sex. *Pediatrics*. 2007; 119(2):229. [PubMed: 17272611]
21. Ott MA, Millstein SG, Ofner S, Halpern-Felsher BL. Greater expectations: Adolescents' positive motivations for sex. *Perspectives on Sexual and Reproductive Health*. 2006; 38(2):84–89. [PubMed: 16772189]
22. Ellen JM, Cahn S, Eyre SL, Boyer CB. Types of adolescent sexual relationships and associated perceptions about condom use. *Journal of Adolescent Health*. 1996; 18(6):417–421. [PubMed: 8803733]
23. Bauman LJ, Berman R. Adolescent relationships and condom use: Trust, love and commitment. *AIDS and Behavior*. 2005; 9(2):211–222. [PubMed: 15933840]
24. Okazaki S. Influence of culture on Asian American's Sexuality. *Journal of Sex Research*. 2002; 39(1):34–41. [PubMed: 12476254]
25. Grunbaum JA, Lowry R, Kann L, Pateman B. Prevalence of health risk behaviors among Asian American/Pacific islander high school students. *Journal of Adolescent Health*. 2000; 27(5):322–330. [PubMed: 11044704]
26. Tosh AK, Simmons PS. Sexual activity and other risk-taking behaviors among Asian-American adolescents. *J Pediatr Adolesc Gynecol*. 2007; 20(1):29–34. [PubMed: 17289514]
27. Schuster MA, Bell RM, Nakajima GA, Kanouse DE. The sexual practices of Asian and Pacific Islander high school students. *Journal of Adolescent Health*. 1998; 23(4):221–231. [PubMed: 9763158]
28. Brady SS, Halpern-Felsher BL. Social and emotional consequences of refraining from sexual activity among sexually experienced and inexperienced youths in California. *Am J Public Health*. 2008; 98(1):162–168. [PubMed: 18048792]

Implications and Contribution

The findings from this study will improve our understanding of the specific situational and contextual circumstances that adolescents believe must be in place in order to have vaginal sex. Ultimately, the findings should assist healthcare professionals to develop interventions aimed at decreasing risky sexual behavior and delaying sexual debut.

Table 1

Participant Characteristics Overall and by Sexual Behavior

Sample Characteristics	% (n)	Only Oral Sex % (n)	Only Vaginal Sex % (n)	Oral and Vaginal Sex % (n)	Never Had Sex % (n)
Responded About:					
Sexual Activity (n=497[*])		10.7 (53)	4.4 (22)	16.5 (82)	68.4 (340)
Gender (n=517[*])					
Male	41.4 (214)	7.4 (15)	3.9 (8)	15.7 (46)	70.9 (144)
Female	58.6 (303)	12.9 (38)	4.8 (14)	17.7 (36)	66.7 (196)
Race/Ethnicity (n=518[*])					
White	41.3 (214)	7.4 (15)	3.9 (8)	17.7 (36)	70.9 (144)
Latino	29.3 (152)	14.0 (21)	3.3 (5)	12.7 (19)	70.0 (105)
Asian	20.9 (108)	9.8 (10)	4.9 (5)	15.7 (16)	69.6 (71)
Pacific Islander	8.5 (44)	16.3 (7)	19.3 (4)	25.6 (11)	48.8 (21)
Religiosity (n=504[*])					
Not at all	20.6 (104)				
A little	16.8 (153)				
Somewhat	19.5 (195)				
Very	13.9 (70)				
Mother's Education (n=303^{*,**})					
Less than High School	15.8 (48)				
High School Graduate	43.2 (131)				
College Graduate	31.4 (95)				
Professional-Graduate	9.6 (29)				

* For each sample characteristic, the total n differs due to participants not answering or skipping certain questions.

** For mother's education, 45 participants said they did not know their mother's highest level of education; and several others skipped this question.

Table 2

Percentage of Adolescents who Endorse Specific Sexual Boundaries Overall and By Gender

Boundary	Total (%)	Male (%)	Female (%)	χ^2
Never (I would not do this activity under any circumstance)	3.7	5.9	2.3	4.3 *
At any Opportunity	10.3	20.7	3.3	39.5 ***
At a Certain Age	16.8	15.9	16.9	0.003
Feel Mature to Handle Consequences	53.1	46.8	57.1	5.21 *
Attractive Partner	24.1	36.0	16.3	25.60 ***
Length of Relationship	15.6	10.7	18.6	4.85 *
Committed Relationship	44.0	36.0	49.5	9.02 **
Trust of Partner	50.7	45.3	54.5	4.07 *
Partner and I are in Love	46.5	36.0	53.8	15.54 ***
I was Married	52.3	38.9	60.8	23.26 ***
I will not get in Trouble	24.9	29.6	21.6	4.12 *
No one would find out	17.6	19.7	15.9	1.19
Safer Sex Method Available	38.3	37.4	39.2	0.16

*
p<.05,**
p<.01,***
p<.001

Table 3

Racial/Ethnic Differences in Vaginal Sexual Boundaries

Boundary	White (W) N=203	Latino (L) N=152	Asian (A) N=108	Pacific Islander (PI) N=44	χ^2	R/E Comparison
Never (I would not do this activity under any circumstance)	1.9%	6%	7.9%	2.6%	6.75	
At any Opportunity	8.7%	13.7%	10.1%	10.5%	0.57	
At a Certain Age	23.2%	15.4%	7.9%	7.9%	13.42**	W > A** W > PI*
Feel Mature to Handle Consequences	53.1%	53.8%	50.6%	57.9%	0.61	
Attractive Partner	25.1%	25.6%	23.6%	21.1%	0.94	
Length of Relationship	18.4%	13.7%	13.5%	7.9%	3.57	
Committed Relationship	45.9%	41.9%	39.3%	34.2%	2.43	
Trust of Partner	54.1%	50.4%	39.3%	44.7%	5.83	
Partner and I are in Love	48.3%	43.6%	42.7%	39.5%	1.66	
I was Married	45.4%	50.4%	59.6%	65.8%	8.53*	A > W* PI > W*
Will not get in Trouble	26.1%	23.9%	25.8%	15.8%	1.94	
No one would find out	17.9%	18.8%	20.2%	7.9%	2.99	
Safer Sex Method Available	40.1%	40.2%	34.8%	39.5.5%	0.84	

* p<.05,

**

p<.01,

p<.001

Table 4

Differences in Vaginal Sexual Boundaries by Previous Sexual Experience: Results from Logistic Regression Analyses

Boundary	OR	95% CI
Any Opportunity		
VS	9.59	3.58–25.67
OS	0.66	0.15–2.91
BOTH	5.89	2.96–11.73
At a Certain Age		
VS	0.58	0.13–2.54
OS	3.22	1.70–6.08
BOTH	0.17	0.47–1.19
Feel Mature to Handle Consequences		
VS	0.47	0.19–1.12
OS	0.60	0.34–1.08
BOTH	0.34	0.20–0.58
Attractive Partner		
VS	1.58	0.59–4.18
OS	1.66	0.86–3.20
BOTH	2.54	1.49–4.33
Length of Relationship		
VS	1.81	0.58–5.63
OS	3.21	1.61–6.39
BOTH	2.67	1.43–4.96
Committed Relationship		
VS	1.07	0.44–2.57
OS	3.26	1.76–6.05
BOTH	1.76	1.07–2.89
Trust of Partner		
VS	1.22	0.52–2.90
OS	3.77	1.94–7.30
BOTH	2.14	1.28–3.57
Partner and I are in Love		
VS	0.60	0.24–1.51
OS	2.12	1.17–3.84
BOTH	1.39	0.85–2.28
I was Married		
VS	0.38	0.15–0.92
OS	0.43	0.24–0.78
Both	0.34	0.20–0.56
Will not get in Trouble		
VS	1.64	0.64–4.16

Boundary	OR	95% CI
OS	1.66	0.88–3.11
BOTH	1.59	0.92–2.74
No one would find out		
VS	0.54	0.12–2.37
OS	1.93	0.98–3.80
BOTH	1.41	0.76–2.63
Safer Sex Method is Available		
VS	0.48	0.17–1.34
OS	1.36	0.76–2.43
BOTH	1.05	0.63–1.74

Note. OR = Odds Ratio, OS = Oral sex and VS = vaginal sex. No previous sexual experience is the reference category. OR's in bold are significant values.