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# Condoms and Developmental Contexts in Younger Adolescent Boys

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## **Abstract**

**Background**—Condom use is a key part of STI prevention for young men. Yet little is known about how younger adolescent boys initially learn about and use condoms. We examined sources of information, attitudes toward, acquisition, practice, and early use of condoms among 14–16 year old boys.

**Methods**—Thirty 14–16 year old boys were recruited from a teen clinic serving a community with high STI rates, and were asked open ended questions about condoms, such as, "Where did you learn about condoms?", and "In what situations would you/would you not, use condoms." Interviews were audio recorded, transcribed, and coded. Qualitative analysis focused upon key concepts and shared social cognitions related to condom use.

**Results**—Both sexually inexperienced and experienced participants perceived that sex feels or would feel less pleasurable with condoms. For almost all participants, families were the primary source of both information about condoms and of condoms themselves. This information focused on pregnancy prevention, with STIs secondary. Participants' views of condoms fell into three developmental groups: not interested in condoms and equating their use with interest in sex; exploring condoms out of either curiosity or in preparation for sex; and experience with condom use. Exploring included behaviors such as checking condoms out and trying them on.

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**Conclusions**—Our findings of existing negative perceptions of condoms, the importance of families in learning about condoms, and the developmental need to test and try on condoms before use have implications for adolescent STI prevention programs.

## Keywords

Condoms; Adolescence; Males; Sexually Transmitted Diseases; Sexual Behavior; Development

## INTRODUCTION

Condom use is a cornerstone of STI prevention for adolescent boys.[1] Ideally, boys will use condoms correctly and consistently starting with first intercourse, and continuing with each subsequent episode.[2] However, condom use is often imperfect, and infection and reinfection with STI are common.[3,4] Complicating adolescent boys' condom use is that it has to occur within a developmental trajectory that includes first and subsequent sexual relationships, [5,6] and the learning (intimacy, sexual behaviors, communication) [7] entailed in these relationships.

The content and timing of condom education for adolescents is controversial.[8,9] This is due, at least in part, to lack of empiric data on younger boys' attitudes, beliefs, learning and early use of condoms. Existing data generally examine condom use among sexually experienced adolescents, and point to the importance of relationships, perceived risks for STIs and early fatherhood,[10–14] and perceptions of decreased pleasure and sensitivity with condoms.[15] However, these studies rarely include boys who are not sexually experienced or who have only recently become sexually active. Additionally, focus tends to be on either actual or intended condom use; rarely do studies examine learning processes related to this uptake and early use of condoms. To effectively frame condom promotion messages for adolescents, we must first understand boys' sources of information, attitudes toward, acquisition, practice, and early use of condoms. In STI research, qualitative methods are increasingly employed to understand this type of phenomena.[16] In this study, we use qualitative methods to identify and describe key concepts and processes in how younger adolescent boys learn about, acquire and use condoms.

## MATERIALS AND METHODS

#### **Participants**

Thirty adolescent boys, 14–16 years old, were enrolled from an adolescent clinic serving low and middle income urban communities. This age range was chosen because a majority of young men in this area become sexually experienced by age 16. Sexual experience was not an inclusion criterion. Each adolescent provided written consent and parents provided written permission. The study was approved by the institutional review board of IUPUI—Clarian.

## **Procedures**

Adolescents completed brief structured questionnaires on sexual behavior, 1 hour face-to-face semi-structured interviews, and urine-based PCR testing for Gonorrhea, Chlamydia and

Trichomonas. All interviews were conducted by a male interviewer and participants were reimbursed \$20 per interview.

#### Interviews

The interview covered boy's relationship and sexual experiences, and participants were asked open ended questions about condoms, such as, "Where did you learn about condoms?", "What are good (bad) things about condoms?" "What situations did you (did you not) use condoms?" and "In what situations would you (would you not) use condoms?" The interviewer listened for shared content and meaning, and asked participants to explain or elaborate on responses to these questions. When participants mentioned condoms during other parts of the interview, they were also asked to elaborate on their perceptions of condoms, how they learned about condoms, and how their romantic and sexual relationships influence their intentions to use, and actual use of, condoms.

## **Analysis**

Interviews were audio recorded, transcribed, and analyzed by four authors (JR, MO, DB, KM), looking for shared concepts and models of social cognition held by social groups. [17,18] First, all instances where condoms were mentioned were identified and selected. Using an open coding approach, we identified key concepts within the "condom" index code. For each key concept, we developed a list of its properties and dimensions. Similar concepts were collapsed and differences were resolved by discussion. These key concepts were organized into tentative models and tested against subsequently collected data.

## RESULTS

We first describe general experiences with and beliefs about condoms common to almost all participants, and then describe three developmental groups based upon their knowledge, attitudes, and experiences with condoms.

## **Participants**

Participants' mean age was 14.9 years, and ethnicities included African American (n=27), white (n=2), and Latino (n=1). Sixteen were sexually experienced at baseline. All sexually experienced participants had used a condom at least once and 14 reported using a condom at last intercourse. A total of 4 participants tested positive for STI (2 Chlamydia, 2 Trichomonas).

#### **Overall Beliefs about Condoms**

Overall, participants held a practical approach to condoms, describing neither strong positive or negative feelings about using condoms (i.e. no one "hated" or "loved" condoms). One participant commented "*They [condoms] are what they are*", while another said "*I don't necessarily like them, but you gotta use them if you don't want a kid or disease.*" All described the primary purpose of using condoms as a method to avoid unwanted pregnancy; STIs were a secondary benefit, if mentioned at all. Regardless of sexual experience, most (n=19) participants said that sex feels or would feel different with condoms: Pleasure and

decreased sensitivity were most commonly listed. Fourteen suggested that condoms often break. Withdrawal was often offered as an alternative.

## Information, Content, & Sources

Participants identified family members as their primary source of information about condoms. These were mostly male relatives, and included 15 fathers, 9 older brothers, 5 uncles, as well as a few mothers. Family members were also the most highly trusted sources of information:

"My father used to sit down and talk to us and he kind of touched bases around [condoms]. I always listen to what he says, even about the things that I don't wanna hear. I know it is something to gain because he is very smart." (15 year old)

Family members were also the primary source of obtaining condoms themselves, "I don't get them from stores, I just get them from people. Just family, just give them to me just in case." Several (n =4) reported that their relative described the correct procedures for using a condom, but no one reported having condom use demonstrated.

Information provided by family members focused primarily on pregnancy prevention and secondarily on STI prevention. When STIs were mentioned, participants specifically mentioned HIV, but did not mention more prevalent STIs such as Chlamydia and Gonorrhea. Almost all said that their family members discussed how to have sex safely. However, no one said that their family members discussed the decision to have sex in the first place. Topics, such as figuring out the right time in one's life to have sex or whether a relationship is in the right place, were not brought up.

Other sources of information about condoms were peers and school based sex education classes. Participants generally felt that these two sources of information were less trustworthy. Additionally, participants' understanding of condom information received from schools varied markedly in scientific accuracy: "They can only protect you from getting babies. That is true, they cannot protect you from getting STDs or AIDS, HIV, anything. It is like only 25% out of that 100% that you cannot get STDs or HIV." Participants also described receiving overlapping and sometimes conflicting messages from family, peers and schools.

Several participants linked beliefs about condoms' lack of effectiveness with non-use. This all or nothing attitude toward condoms was exemplified by a 15 year old participant:

"Our teacher told us that they are like 60% effective and that to me that is like, [if]there is not a 100% chance that I can't get her pregnant, I don't see the point in using one."

## **Views of Condoms – Three Developmental Groups**

In addition to the common views with condoms described above, participants fell into three groups based upon their knowledge of, attitudes towards, and experiences with condoms. We labeled these groups "uninterested," "exploring," and "condom experienced."

**Not interested**—The "uninterested" group had never used condoms and expressed no interest in learning about condoms (Column 1, Table 1). They were younger, and not sexually experienced. Their past romantic relationships were limited to short-term, tentative, usually school-based, relationships. They did not describe time alone with their "girlfriend" outside of a school or other public setting, nor did they report feelings of closeness. Sexual behaviors had not gone beyond deep kissing.

This "Not Interested" group equated condom knowledge to readiness for more serious relationships and sex. One participant said that he believed condoms were a topic that was only relevant if he had been in a relationship for a long period of time. He and several others expressed that, before learning about condoms, they first needed to learn what was involved in relationships and sex. The low priority give to condoms was summarized by a 14 year old young man: "Right now I am not clear on...the, 'oh you got to use condoms' stuff. I am not ready for any of that yet." For this group, sex and condoms were a distant prospect. When a 15 year old participant was asked "Can you tell me when you definitely would use a condom?" He answered, "I suppose, sex with a girl," suggesting that both sex and condom use had not been considered.

**Exploring**—The "Exploring" group (n=9) demonstrated a basic level of condom knowledge, but had never used condoms during vaginal or anal sex with a partner (Column 2, Table 1). The label, "Exploring," comes from the exploratory behaviors described by these participants, including the following: talking to others about different condom brands, unrolling or unwrapping condoms, stretching them out, and privately trying them on. Several participants described situations where they and their friends had "checked out" condoms. Doing so allowed them to learn about and gain experience handling condoms in a casual manner that did not put pressure on the adolescent (Middle column, Table 1).

Reasons for condom exploration included both curiosity and preparation. Those who were curious (n=4) generally stated that they did not plan on using condoms in the near future, but their discussion of condoms and descriptions of exploratory behaviors suggested curiosity and interest in learning more. A 15 year old explained, "My cousin gave me two of them, but I said I didn't need them because I wasn't going to have sex any time soon," but then said that he carries one of these condoms in his wallet.

Although none of the "Exploring" group reported a past history of vaginal or anal sex, some (n=5) were preparing for sexual activity. These participants believed they would be sexually active soon, were actively exploring condoms by opening packets, trying condoms on, and obtaining condoms when they were available. A 16 year old explained, "I tried one [condom] on to see what it's like to put one on. It was kind of weird at first, you don't really know what to do with it and after awhile I tried another one on, and it just went on, so I think that they are good to use I guess." (see additional quotes, column 2, Table 1).

**Condom Experienced**—We labeled the remaining participants "condom experienced" (n=16) based upon their attitudes toward, and experience with, condoms. All participants in this group had experienced first sex. All participants who tested positive for STI were in this

group, although none of those participants mentioned STI prevention as a benefit of condom use.

Most (n=14) acknowledged the necessity of condom use in preventing pregnancy. When asked what he liked about condoms, one participant replied "*Nothing, really, you just have a better chance of not having any babies. You just have to use them.*"

Several participants (n=5) reported having sex before knowing the importance of condoms and how to use condoms. Here, a 16 year old describes how his first sexual encounter forced him to then start thinking about using condoms: "I was just probably getting smarter at the time. I was just like I will just make a decision and I wouldn't think twice about it, I would just go with it. But then I started thinking twice about using condoms because I knew that I am going to be having sex, at least use a condom."

"Condom experienced" participants described how their relationship contexts affected their decisions to use condoms. Most (n=12) reported more actual or planned condom use with non-romantic sexual partners or more casual sexual encounters. Several participants (n=8) said that they either use condoms less, or stop using them altogether, after going out with a girlfriend for "a long time" (generally 2–4 months). This group generally reported that they were less likely to use a condom in more intimate relationships (i.e. "girlfriend" relationships).

The "condom experienced" group specifically identified being prepared for fatherhood as another reason for condom non-use. Participants indicated that the ability to care for a child, usually marked by a certain age or job status, was likely to decrease their regular use of condoms. "If the girl and I are ready to have a baby, which probably is going to be when you are over 18, so yeah, when we are ready to have on, that is when I might not use a condom."

## DISCUSSION

This study extends our understanding of condom learning and uptake among adolescent boys, and has direct implications for prevention programs. First, curiosity and preparation point to a developmental need for physical exploration and learning about condoms before they are needed. As has been noted in other studies, prevention programs may be able to improve the adoption and use of condoms by younger adolescents by improving skills and self-efficacy in manipulating condoms.[19–20] Our findings also support the use of condom demonstrations and easy access to condoms for young adolescents as tools to increase competency and eventual use. While school condom distribution has been criticized because most of the condoms are played with and few are used during sex [21] these behaviors could also be considered part of a condom learning process.

Second, participants clearly identified family members, particularly male relatives, as their primary and most trusted source of both condom information and condoms themselves. This finding is consistent with the developmental understanding of early to middle adolescence as a time when young men still look to families for support and guidance.[22] Interventions to increase condom use, however, typically focus upon the individual adolescent.[23–26] Our results suggest that these interventions may want to expand beyond the individual and

additionally target families. A family-targeted intervention could build on and expand the family's existing role in condom education. This approach would provide family members, particularly fathers, uncles, and older brothers, with the skills, knowledge and self efficacy to talk to adolescent boys about both safer sexual decision-making and condom use.

Finally, similar to findings from existing research, negative attitudes about condoms were associated with decreased sensitivity[27], while reasons to use condoms focused on preventing pregnancy and fatherhood, rather than STIs.[28] These findings can be interpreted in two ways. First, STI prevention efforts may want to additionally stress the pregnancy prevention aspects of condom use, linking to these strongly held beliefs. Second, it indicates the need for a better understanding of perceived risk for STI in young adolescent populations, and for new educational approaches to link condoms to STI transmission.

The very strength of this study, its qualitative design and clinic based sample, also is a limitation. While small samples allow for an opportunity to explore themes in depth, they limit generalizability beyond similar groups. We interviewed a low income, primarily African American, U.S. based sample of adolescents. While many developmental processes are universal, cultural differences may exist in family structure and family willingness to discuss or provide condoms, sexual behaviors, and the nature of early relationships, all of which could impact on our findings.

## CONCLUSION

The promotion of consistent and correct condom use for adolescent boys will likely require a more developmentally focused approach. Our findings reinforce the need to better understand existing sources for condom information, the role of families, and the developmental need to explore condoms before first use.

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## References

- Centers for Disease Control and Prevention. Facts about condoms and their use in preventing HIV infection and other STDs. Atlanta: US Department of Health and Human Resources; 1998.
- 2. American Academy of Pediatrics, Committee on Adolescence. Condom Use by Adolescents. Pediatrics. 2001; 107:1463–1469. [PubMed: 11389278]
- 3. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2007. Atlanta, GA: US Department of Health and Human Services; 2008.
- Orr DP, Johnston K, Brizendine E, et al. Subsequent sexually transmitted infection in urban adolescents and young adults. Arch Pediatr Adolesc Med. 2001; 155:947–953. [PubMed: 11483124]
- 5. Ku L, Sonenstein FL, Pleck JH. The dynamics of young men's condom use during and across relationships. Fam Plann Perspect. 1994; 26:246–251. [PubMed: 7867771]
- 6. Fortenberry JD, Tu W, Harezlak J, et al. Condom Use as a Function of Time in New and Established Adolescent Sexual Relationships. Am J Public Health. 2002; 9:211–213.

7. Giordano PC, Manning WD, Longmore MA. The Romantic Relationships of African-American and White Adolescents. Sociol Q. 2005; 46:45–68.

- 8. Ott MA, Pfeiffer EJ, Fortenberry JD. Perceptions of Sexual Abstinence among High-Risk Early and Middle Adolescents. J Adolesc Health. 2006; 39:192–198. [PubMed: 16857530]
- 9. Martinez GM, Cahndra A, Abma JC, et al. Fertility, contraception, and fatherhood: Data on men and women from cycle 6 (2002) of the 2002 National Survey of Family Growth. Vital Health Stats. 2006; 23:1–142.
- Ott MA, Adler NE, Millstein SG, et al. The trade-off between hormonal contraceptives and condoms among adolescents. Perspect Sex Reprod Health. 2002; 34:6–14. [PubMed: 11990639]
- Kaestle CE, Halpern CT. What's Love Got to Do with It? Sexual Behaviors of Opposite-Sex Couples Through Emerging Adulthood. Perspect Sex Reprod Health. 2007; 39:134–140.
   [PubMed: 17845524]
- 12. Shafii T, Stovel K, Davis R, et al. Is Condom Use Habit-Forming? Condom Use at Sexual Debut and Subsequent Condom Use. Sex Transm Dis. 2004; 31:366–372. [PubMed: 15167648]
- Ford K, Sohn W, Lepkowski J. Characteristics of Adolescents' Sexual Partners and Their Association with Use of Condoms and Other Contraceptive Methods. Fam Plann Perspect. 2001; 33:100–105. [PubMed: 11407432]
- 14. Elam G, Macdonald M, Hickson FC, et al. Risky sexual behavior in context: qualitative results from an investigation into risk factors for seroconversion among gay men who test for HIV. Sex Trans Inf. 2008; 84:473–477.
- 15. Marston C, King E. Factors that shape young people's sexual behaviour: a systematic review. Lancet. 2006; 36:1581–1586.
- Power R. The application of qualitative research methods to the study of sexually transmitted infections. Sex Transm Inf. 2002; 78:87–89.
- 17. Strauss, AL., Corbin, JM. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. 2. Thousand Oaks, CA: Sage Publications; 1998.
- D'Andrade, RG. The Development of Cognitive Anthropology. Cambridge, UK/New York, NY: Cambridge University Press; 1995.
- 19. Stephenson JM, Strange V, Forrest S, et al. Pupil-led sex education in England (RIPPLE study): cluster-randomised intervention trial. Lancet. 2004; 364:338–46. [PubMed: 15276393]
- Wight D, Raab G, Henderson M, et al. Limits of teacher delivered sex education: interim behavioural outcomes from randomized trial. BMJ. 2002; 324:435. [PubMed: 11859030]
- Schuster MA, Bell RM, Berry SH, et al. Students' Acquisition and Use of School Condoms in a High School Condom Availability Program. Pediatrics. 1997; 100:689–694. [PubMed: 9310526]
- 22. Larson RW, Richards MH, Giovanni M, et al. Changes in adolescents' daily interactions with their families from ages 10 to 18: Disengagement and transformation. Dev Psychol. 1996; 32:744–754.
- 23. Robin L, Dittus P, Whitaker D, et al. Behavioral interventions to reduce incidence of HIV, STD, and pregnancy among adolescents: a decade in review. J Adolesc Health. 2004; 34:3–26. [PubMed: 14706401]
- 24. Card JJ, Niego S, Mallari A, et al. The Program Archive on Sexuality, Health & Adolescence: Promising "prevention programs in a box". Fam Plann Perspect. 1996; 28:210–220. [PubMed: 8886764]
- 25. Grunseit A, Kippax S, Aggleton P, et al. Sexuality education and young people's sexual behavior: A review of studies. J Adolesc Res. 1997; 12:421–453. [PubMed: 12348560]
- 26. Kirby D, Short L, Collins J, et al. School-based programs to reduce sexual risk behaviors: A review of effectiveness. Public Health Rep. 1994; 109:339–360. [PubMed: 8190857]
- 27. Wight D. Impediments to safer heterosexual sex: a review of research with young people. AIDS Care. 1992; 4:11–21. [PubMed: 1562627]
- 28. Connell P, McKevitt C, Low N. Investigating Ethnic Differences in Sexual Health: Focus Groups with Young People. Sex Transm Inf. 2004; 80:300–305.

## **Key Messages**

- **1.** Developmental concepts important to the learning and uptake of condoms include curiosity, exploration, and preparation for use.
- **2.** Families are important sources of adolescents' learning about and obtaining condoms, and should be supported in their STI prevention efforts.
- **3.** Pregnancy prevention is an important aspect of adolescent condom use; STI prevention efforts may benefit from more explicitly linking condoms to pregnancy prevention.

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**Table 1**Group Differences: Three Views of Condom Use by Adolescent Boys

	Uninterested	Exploring	Condom Experienced
N	5	9	16
Relationship Experience	Limited romantic relationship experience	Increasingly developed romantic relationships	Longer term romantic relationships including both romantic and casual sex partners
Sexual Experience	Not sexually experienced	Not sexually experienced	Sexually experienced
Condom Knowledge	Equated condom knowledge to readiness for more serious relationships and sex	Indicated a need to gain more knowledge	Associated condom use with preventing pregnancy
<b>Condom Attitudes</b>	Expressed no interests in learning more about condoms	Condom exploration described by participants	Condom use determined by relationship context
Condom Experience	Never used condoms	Talking to others about condoms, unrolling or unwrapping condoms, trying them on	All had experience with using condoms
Representative Quotes	"I don't even have the money to afford batteries. How am I going to buy condoms?" - 14 year old	"I seen them in [my Dad's] drawer and I just took one. Tried it on and stuff."-16 year old "There is a party coming up, so one	that I used a condom on the girl I wasn't going with and didn't with the girl that I was going with." - 15 year
		dude told us to bring condoms or whatever because we were just going to have sex with all these girls or something."-15 year old	
		"If I was in a real relationship, other and we just like felt really strongly about each other, then I probably wouldn't use one."-15 year old	