

Late Adolescent Girls' Sexual Experiences and Sexual Satisfaction

Emily A. Impett

Deborah L. Tolman

*Center for Research on Gender and Sexuality,
San Francisco State University*

This study presented and tested a model of sexual satisfaction for late adolescent girls. In this model, sexual self-concept and approach sexual motives were tested as predictors of adolescent girls' sexual satisfaction with their most recent experience of sexual intercourse. A total of 116 girls in 12th grade (ages 16-19) completed measures of sexual self-concept and sexual experiences. A smaller number of girls (n = 70) with intercourse experience completed measures of their motives for engaging in sex and their sexual satisfaction with their most recent intercourse experience. Results showed that both sexual self-concept and approach sexual motives were associated with greater sexual experience across a broad range of sexual behaviors. Furthermore, sexual self-concept and approach sex motives predicted higher sexual satisfaction at most recent intercourse. The importance of investigating positive factors in girls' developing sexuality is discussed.

Keywords: *adolescent sexuality; sexuality development; sexual satisfaction; sexual self-concept; sexual motivation*

The development of healthy sexuality during adolescence is a critical developmental task (Christopher, 2001; Gagnon & Simon, 1973; Tolman, 2002). However, because much of the research on adolescent sexuality is organized around diminishing risks and negative outcomes (Ehrhardt, 1996), we know very little about positive dimensions of adolescents' sexual experiences, particularly those of adolescent girls. Sexual agency and desire, assumed to be inherent in adolescent male sexuality, are glaringly absent from conceptions of adolescent girls' sexuality (Fine, 1988; Holland, Ramazanoglu, Sharpe, & Thompson, 1998; Tolman, 1999). Although there is a huge literature tracking girls' sexual behavior and use of protection (particularly with ethnic minority girls), little is known about adolescent girls' experiences of sexuality. Indeed, because adolescent girls' sexuality is

This research was supported by a postdoctoral fellowship awarded to Emily A. Impett from the Center for Research on Gender and Sexuality and by grants from the National Institute of Child Health and Development (R29 HD33281-02) and the Ford Foundation awarded to Deborah L. Tolman. We are especially grateful to Celeste Hirschman, Janna Kim, Deborah Schooler, and Lynn Sorsoli for comments on an earlier version of this article.

Journal of Adolescent Research, Vol. 21 No. 6, November 2006 628-646

DOI: 10.1177/0743558406293964

© 2006 Sage Publications

largely ignored unless or until it results in adverse consequences such as pregnancy or sexually transmitted infections, researchers have developed a narrow perspective and body of knowledge on the sexual lives of adolescents. From a developmental perspective that acknowledges that adolescence is a period in which many girls explore and develop sexuality (Tolman, 2001), new questions emerge that focus on the positive aspects of girls' sexuality (Impett, Schooler, & Tolman, 2006; O'Sullivan, Meyer-Bahlberg, & McKeague, 2006; Tolman, Striepe, & Harmon, 2003).

By the time they graduate from high school, a majority of girls have engaged in sexual intercourse. In a recent national survey of adolescents, almost two thirds (62%) of girls in the senior year of high school (12th grade) reported that they had engaged in sexual intercourse (Centers for Disease Control and Prevention [CDC], 2004). Adolescence is a long and complex developmental period lasting from about ages 10 to 18, with the first part considered early and the second part considered late. Expectations about what is appropriate or healthy for developing sexuality may differ in important ways depending on where an adolescent is in the process. For some girls, sexual experiences can be physically and emotionally satisfying throughout adolescence (Thompson, 1990; Tolman, 2002). For some girls and under some circumstances, however, sexual experiences can be anything but satisfying. Sexual interactions can rouse negative emotions such as guilt, shame, anger, regret, and disappointment (e.g., Moore & Davidson, 1997; Sawyer & Smith, 1996; Tsui & Nicoladis, 2004), particularly if they occur in the context of coercion and abuse (Jordan, Price, Telljohann, & Chesney, 1998; Kaiser Family Foundation & *YM Magazine*, 1998).

For late adolescents, many of whom choose to engage in sexual intercourse, it is important to inquire about the quality of these experiences as a key dimension of their sexuality development. In a study of college students, almost two thirds (61%) of women rated their sexual experience as either perfect, very good, or good (Darling, Davidson, & Passarello, 1992). However, in this same study, less than one third (28%) of women perceived their first sexual experience to be physically satisfying, and less than one third (28%) perceived their first sexual experience to be psychologically satisfying. What contributes to sexual satisfaction for adolescent girls? Although numerous studies have investigated correlates of sexual satisfaction in adult women (see review by Sprecher & Cate, 2004), no research to date has explicitly examined the factors that enable adolescent girls and young women to have positive, satisfying sexual experiences. In the current study, we investigated two positive aspects of late adolescent girls' sexuality: their sexual self-concepts (Andersen & Cyranowski, 1994) and their motivations for engaging in sex (Impett, Peplau, & Gable, 2005).

Sexual Self-Concept

A primary task of adolescence is achieving a sense of self or identity (Erikson, 1968). The intersection of this developmental task with new sexual and romantic experiences renders adolescence a period in which young people are actively constructing a sense of themselves as sexual beings (Stein, Roeser, & Markus, 1998). That is, during adolescence sexuality becomes an important part of an individual's self-definition or concept of the self (Buzwell, Rosenthal, & Moore, 1992; Chilman, 1983; Gagnon & Simon, 1973). In this article, sexual self-concept is defined as an individual's overall concept of the self as a sexual person, including both positive aspects (e.g., passion, arousability, and agency) and negative aspects (e.g., anxiety, negative affect, and embarrassment; Andersen & Cyranowski, 1994; O'Sullivan et al., in press).

Very little research has examined sexual self-concept in adolescence despite the fact that it is during this developmental period that many young people develop an interest in sexuality. The few studies that have examined sexual self-concept in adolescence focused solely on understanding sexual risk taking (Breakwell & Millward, 1997; Buzwell & Rosenthal, 1996). However, research with young adults points to important ways in which women's sexual self-concepts are associated with their sexual attitudes and behaviors. A measure devised by Andersen and her colleagues called the Women's Sexual Self Schema Scale assesses two positive components of women's sexual self-concepts (passion-romanticism, openness-directness) and one negative component (embarrassment-conservatism; Andersen & Cyranowski, 1994; Cyranowski & Andersen, 1998). Research using this measure has shown that women with positive sexual self-concepts have more positive attitudes toward sexual expression, higher frequencies of sexual behaviors, higher levels of positive sexual affect such as sexual desire and arousal, and lower levels of negative affect such as sexual anxiety (Andersen & Cyranowski, 1994). The positivity of women's self-concepts was also associated with experiencing a broader range of lifetime sexual behaviors and more lifetime sexual partners. These behaviors often occurred in the context of romantic relationships: Women with positive sexual self-concepts also reported greater feelings of passionate love and more extensive romantic relationship histories than did women with negative sexual self-concepts. In short, this research indicates that the extent to which girls and women think of themselves as sexual beings is highly related to their self-reported sexual experiences, with positive sexual self-concept women reporting a broader range of and more positive sexual experiences than negative self-concept women. Drawing on this literature, it seems likely that the positivity of a girl's

self-concept in adolescence will be associated with her sexual experiences and sexual satisfaction.

Sexual Motives

A second factor that may be associated with late adolescent girls' sexual satisfaction concerns the reasons or motives that guide their decisions to engage in sex with a partner (Cooper, Shapiro, & Powers, 1998; Impett & Peplau, 2003). Early behavioral approaches to the study of human sexuality largely ignored the motivational underpinnings of sexual behavior (e.g., Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). Studies that attempted to address the role of motivation often presented a simplistic, biologically oriented view that focused primarily on an inborn drive for orgasmic release (e.g., Masters & Johnson, 1966), a position that was consistent with popular drive-reduction theories of the time (cf. Heckhausen, 1991). More recently, motivational theorists have broadened their scope to include a variety of incentives that are external to the individual and, in particular, factors specific to intimate relationships for women (e.g., Basson, 2001). Numerous empirical studies have documented a range of reasons for interest in sex in addition to the pursuit of physical or sexual pleasure. These include desires to reproduce, to please one's partner, to promote intimacy in a valued relationship, to relieve sexual tension, to gain sexual experience, to prevent relationship conflict or dissolution, to experience a sense of conquest, and to impress one's peers (e.g., Hill & Preston, 1996; see also review by Impett & Peplau, 2003).

A distinction made by many theories of motivation is whether an individual acts to obtain a positive outcome or to avoid a negative outcome. Behaviors undertaken in the pursuit of positive or pleasurable experiences have been labeled approach motivated; those that involve the avoidance of negative or painful experiences have been termed avoidance motivated (Carver & White, 1994; Gray, 1987). In the realm of sexuality, approach motives focus on obtaining positive outcomes such as one's own physical pleasure, a partner's happiness, or enhanced intimacy in the relationship (Cooper et al., 1998). Avoidance motives, in contrast, focus on evading negative outcomes such as one's own sexual frustration, a partner's loss of interest in the relationship, or conflict in the relationship. Similar to the research on sexual self-concept reviewed above, previous research on approach and avoidance sexual motives has typically focused on understanding and preventing risky sexual behavior. For instance, research with both adolescents and young adults has found that approach motives were associated with less sexual risk taking, whereas avoidance motives were associated with more risky sexual behavior (e.g., Cooper et al., 1998).

No research to date has examined how sexual motives are associated with satisfaction with the sexual aspects of relationships. A recent daily experience study, however, found support for the idea that approach and avoidance motives are differentially associated with one's own emotions and satisfaction in the relationship in general (Impett et al., 2005). More specifically, on days when college men and women engaged in sex for approach motives such as to pursue their own physical intimacy or to promote intimacy in a relationship, they reported more positive emotions and greater relationship satisfaction and closeness. In contrast, on days when they engaged in sex for avoidance motives such as to avoid conflict or prevent a partner from losing interest in the relationship, they reported more negative emotions and more relationship conflict. In short, people's motives for engaging in sex may be associated with their sexual experiences, and previous research suggests that engaging in sex for approach motives in particular may be associated with greater satisfaction with the sexual aspects of one's relationship. No research has yet tested these hypotheses linking approach motivation with sexual satisfaction in an adolescent sample.

Overview of the Current Research and Hypotheses

The current study seeks to extend the research on sexual self-concept and sexual motives that has been conducted with young adult women to a sample of late adolescent girls. Because developing healthy sexuality is a key task of adolescence, we suggest that factors relevant to the sexual satisfaction of adult women are also relevant in adolescence. It is also possible, however, that some of the factors that are relevant to the sexual satisfaction of adult women will not be relevant to adolescent girls, given that adolescent girls are not told to be sexual or to enjoy sex. The first goal of this article is to test hypotheses linking girls' sexual self-concept and approach sexual motives with their level of experience with a broad range of sexual behaviors. Our conception of sexuality in adolescence incorporates a range of noncoital behaviors in addition to sexual intercourse including kissing, genital touching, and oral sex (Impett et al., 2006; SIECUS, 1995; Tolman, 1999). Although most young people engage in sexual intercourse for the first time during late adolescence, many of them report considerable experience with noncoital activities prior to intercourse. We predicted that the positivity of girls' sexual self-concepts will be associated with their total amount of sexual experience. Furthermore, among girls with intercourse experience, we predicted that engaging in sexual intercourse for approach motives would be associated with more sexual experience.

The second goal of this study was to test a model of sexual satisfaction for girls with sexual intercourse experience. We hypothesized that sexual

self-concept and approach sexual motives would predict girls' sexual satisfaction with their most recent sexual intercourse experience. Structural equation modeling will be used to test the overall fit of this model in a sample of late adolescent girls in the 12th grade. In the test of the model, we will control for various demographic factors that have been associated with sexual behavior in adolescence, including socioeconomic status (e.g., Crosby, Holtgrave, DiClemente, Wingood, & Gayle, 2003), pubertal timing (e.g., Phinney, Jensen, Olsen, & Cundrick, 1990), and religiosity (e.g., McCree, Wingood, DiClemente, Davies, & Harrington, 2003).

Method

Participants and Procedure

The entire 12th grade in one northeastern urban school district was recruited as part of a longitudinal study of adolescent sexual health (our collaboration with administrators and teachers produced 93% compliance for the district; see Tolman & Porche, 2000). A total of 116 girls in 12th grade ages 16 to 19 ($M = 17.3$) participated in this panel of data collection. The sample was ethnically diverse: 59.5% were White, 27.6% were Latina, 6.9% were multiethnic, 2.6% were African American, 1.7% were Asian or Pacific Islander, and 1.7% did not provide a description of their ethnicity. The sample was also diverse in terms of socioeconomic status: 23% reported that their mother did not finish high school, 30% reported that their mother finished high school, and 47% reported their mother's education as college or better. Sixteen of the girls (14%) reported that Spanish was the primary language used at home. A substantial number of girls (21.6%) were born outside of the United States. Of the girls, 69% identified their religious affiliation as Catholic; a little more than one fourth of the girls (28.5%) described religion as important or very important in their life.

Participants completed a pencil-and-paper survey that included questions about their sexual experiences, sexual self-concept, sexual motives, and sexual satisfaction. Written permission was obtained from each girl's parent or guardian. Bilingual students and mainstreamed Latinas were offered the option of completing the survey in Spanish (translated and back translated) with a Spanish-speaking researcher present. Fewer than 10% of girls completed the survey in Spanish. Permission slips were translated into Spanish for this group. Students completed the surveys in school in either health education or physical education class.

Measures

Sexual self-concept. A slightly modified version of the 14-item Sexual Self-Concept Scale (Winter, 1988) was used to assess girls' sense of themselves as sexual beings. This scale was designed specifically for use with adolescents and young adults. Items measure positive aspects of a girl's sexual self-concept (e.g., "It is okay for me to enjoy kissing someone I like" and "I feel it's normal for me to have sexual feelings") and negative aspects of the sexual self-concept (e.g., "I might feel guilty about enjoying sexual experiences" and "I would feel embarrassed about using birth control because it would mean that I'm sexually loose"). Girls responded to the statements on 4-point scales (1 = *disagree a lot* to 4 = *agree a lot*). Several items were reverse scored, and a mean scale was computed with higher scores reflecting a more positive sexual self-concept. The reliability in this sample was quite high ($\alpha = .81$).

Sexual experiences. Girls indicated which of a series of sexual behaviors they had engaged in: (a) kissing on the mouth, (b) touching another person under the clothes or with no clothes on, (c) being touched under the clothes or with no clothes on, (d) receiving oral sex, (e) performing oral sex, and (f) engaging in sexual intercourse. We summed their responses to each of these questions to create an index of sexual experiences (0 = *none of these behaviors* to 6 = *all of these behaviors*). In addition to these questions, girls with sexual intercourse experience also indicated the number of partners with whom they had engaged in sexual intercourse (1 = *1 person*, 2 = *2 people*, etc., to 6 = *6 or more people*), the number of times they had engaged in sexual intercourse (0 = *none*, 1 = *once*, 2 = *2-10 times*, 3 = *more than 10 times*) across their lifetime, and their age at first intercourse.

Approach sexual motives. Girls who reported engaging in sexual intercourse ($n = 70$) answered several questions about their motives for engaging in sex during their most recent sexual intercourse experience. Girls indicated if they engaged in sex for four approach motives: "I was physically attracted to my partner," "I was ready," "It was romantic," and "I was in love" (0 = *no*, 1 = *yes*). These items were taken from a measure developed in focus groups specifically for adolescent girls (Rosenthal, Burklow, Lewis, Succop, & Biro, 1997). The Cronbach's alpha for this measure was .63.

Sexual satisfaction. Girls who reported engaging in sexual intercourse also answered several questions designed to assess their overall satisfaction with their most recent experience of sexual intercourse. The four sexual satisfaction

items were: "It was a good experience," "It made me happy," "I liked how my body felt," and "It made me feel closer to the other person" (0 = *no*, 1 = *yes*). The Cronbach's alpha for this measure was .75.

Socioeconomic status. Maternal or female guardian education was included as a proxy for socioeconomic status. Girls reported to the best of their ability the highest level of formal education achieved by their mother or female guardian (1 = *did not finish high school*, 2 = *finished high school/obtained GED*, 3 = *completed some college*, 4 = *finished college*, 5 = *attended school beyond college*). Maternal education has been shown to be a good general index of socioeconomic status when reported by adolescents, who are often not aware of other potential indicators, such as income level or form of employment (Entwisle & Astone, 1994).

Pubertal timing. Girls' age at menarche was used as a proxy for pubertal timing and was assessed with one item: "At what age did you get your period?"

Religiosity. Religiosity was measured with a single item: "How important is religion in your life?" (1 = *not at all* to 4 = *very*).

Results

The two central goals of the current study were (a) to test sexual self-concept and approach sexual motives as predictors of girls' sexual experiences and (b) to test sexual self-concept and approach sexual motives as predictors of girls' sexual satisfaction (for girls with sexual intercourse experience). Before testing these hypotheses, we present some basic descriptive statistics on the measures included in this study. In terms of sexual experience, almost all of the girls had held hands (94%) or kissed on the mouth (92%). A majority had touched someone under clothing (81%) or had been touched under clothing (82%). More than half of the girls had received oral sex (62%) and performed oral sex (59%). Sixty percent of the girls had engaged in sexual intercourse. Among the girls who had engaged in sexual intercourse, 41% reported 1 partner, 17% reported 2 partners, 20% reported 3 partners, and 22% reported having 4 or more intercourse partners. The majority of girls who had engaged in sexual intercourse (71%) reported that they had done so on more than 10 occasions. The mean age at first intercourse was 15.5 ($SD = 1.4$, range = 12-18). On the whole, the girls in the sample reported sexual self-concepts toward the positive end of the scale ($M = 3.26$, $SD = 0.40$, range = 1.87-3.93).

In terms of sexual motives, 81% reported "I was physically attracted to my partner," 66% reported "I was ready," 61% reported "I was in love," and 49% reported "it was romantic."

How many of the girls found their most recent sexual intercourse experience satisfying—and satisfying in what ways? Of the girls, 80% reported that the experience "made me happy," 64% reported "it was a good experience," 54% reported that "it made me feel closer to the other person," and 43% reported that "I liked how my body felt." Taken together across these four indicators of sexual satisfaction, 13% of girls reported no positive consequences of engaging in sex, 53% reported 1 to 3 positive consequences, and roughly a third (34%) of the girls reported all 4 positive consequences of engaging in sex.

Sexual Self-Concept, Sexual Motives, and Girls' Sexual Experiences

The first goal of this study was to test the hypothesis that sexual self-concept and approach sexual motives would be associated with girls' total level of sexual experience. As predicted, sexual self-concept was associated with girls' overall level of sexual experience, $r(116) = .59, p < .001$. The sexual experience measure was a composite score that reflected girls' cumulative experiences with kissing, genital fondling, oral sex, and sexual intercourse. We should note that sexual self-concept was also associated with each of these sexual behaviors individually. That is, girls with positive sexual self-concepts were more likely to have engaged in a broad range of sexual activities including kissing, genital fondling, oral sex, and sexual intercourse. Among girls who reported engaging in sexual intercourse, sexual self-concept was associated with the number of times that a girl reported engaging in sexual intercourse, $r(70) = .29, p < .05$, but not with the number of sexual intercourse partners that she reported, $r(70) = .07, p = .55$, or with her age at first intercourse, $r(70) = .04, p = .76$. Taken together, these findings suggest that although girls with positive sexual self-concepts may engage in more frequent sex, they do not necessarily make more frequent changes in sexual partners or engage in sexual intercourse at earlier ages than do girls with negative sexual self-concepts.

Another hypothesis of this study was that engaging in sex for approach motives would be associated with more sexual experience. Contrary to expectations, approach motives were not associated with total sexual experience, $r(70) = .05, p = .70$. Approach motives were, however, positively associated with the number of times that a girl reported engaging in sexual intercourse, $r(70) = .32, p < .01$, and were negatively associated with her number of intercourse partners, $r(70) = -.26, p < .05$. Approach motives were not associated

with age at first intercourse, $r(70) = .16, p = .17$. Similar to the results linking sexual self-concept and sexual experience, these results suggest that girls who engage in sex for approach motives may engage in more frequent sexual intercourse but with fewer sexual partners and not at earlier ages than girls who engage in sex often less for approach motives.

Sexual Self-Concept, Sexual Motives, and Adolescent Girls' Sexual Satisfaction

The second goal of this study was to test a model linking sexual self-concept and sexual motives with adolescent girls' sexual satisfaction. Table 1 lists the intercorrelations among the variables used in the model, including the demographic covariates. Structural equation modeling estimated with the EQS computer program (Bentler, 1995) was used to test the model in the subsample of girls who reported experience with sexual intercourse ($n = 70$). Approach sex motives and sexual satisfaction were both modeled as latent factors. The measure of sexual self-concept used in this study was an established scale, so we chose to model it as a measured variable rather than as a latent factor. Model fit was assessed with three indices. First, we report the relative chi-square statistic (likelihood ratio chi-square divided by its associated degrees of freedom; Kline, 2005). Second, we report the comparative fit index (CFI; Bentler, 1990), a common model fit index that is forced to vary between 0 and 1. Hu and Bentler (1999) recommend that a CFI of .95 or greater indicates a good fit. Third, we report the root mean square error of approximation (RMSEA; Jöreskog & Sörbom, 1993), an index that measures the amount of residual between the observed and predicted covariance structure and compensates for the effect of model complexity. Browne and Cudeck (1993) recommend that an RMSEA of .05 or lower indicates that the model provides a good fit to the data. Finally, none of the error variables was allowed to covary, providing a generally more conservative test of the models.

Figure 1 depicts the parameter estimates (i.e., standardized regression weights) for all paths in the model. In general, the model provided a good fit to the data, $\chi^2 = 1.06, p = .41, CFI = .98, RMSEA = .02, CI = .00-.09$. All of the paths in the measurement portions of the model were significant. That is, all four items loaded significantly on the approach sex motives factor, and all four items loaded on the sexual satisfaction factor (all p values $< .05$). Such high factor loadings support the internal consistency of both of these latent constructs. The item with the highest factor loading on approach sex motives was "I was ready," pointing to the importance of "readiness" in girls' sexual experiences.

Table 1: Intercorrelations, Means, and Standard Deviations for All Variables in the Model

Variable	1	2	3	4	5	6
1. Sexual self-concept	—					
2. Approach sex motives	.12	—				
3. Sexual satisfaction	.36*	.48**	—			
4. Socioeconomic status	.02	.02	-.06	—		
5. Pubertal timing	.13	.15	.22	.22	—	
6. Religiosity	.04	.16	.02	.14	.16	—
<i>M</i>	3.44	0.54	0.60	2.65	12.44	1.92
<i>SD</i>	0.26	0.27	0.36	1.28	1.36	0.96

NOTE: *N* = 70.

p* < .01. *p* < .001.

Both of the hypothesized paths in the structural model were also significant. More specifically, sexual self-concept was significantly associated with sexual satisfaction ($\beta = .35, p < .05$), and approach sex motives were associated with sexual satisfaction ($\beta = .58, p < .001$), even after controlling for socioeconomic status, pubertal timing, and religiosity. Of the variance in sexual satisfaction, 53% was accounted for by sexual self-concept and approach sex motives.

Discussion

This study drew on previous research and theory on sexual self-concept and approach-avoidance motivation to understand late adolescent girls' sexual experiences and sexual satisfaction. Before discussing the importance and meaning of the results, it is important to highlight some of the interesting descriptive information about these girls' sexual experiences. Consistent with previous research, we found that almost two thirds of 12th-grade girls had engaged in sexual intercourse, received oral sex, and performed oral sex (CDC, 2004). Many of the girls reported positive consequences of engaging in sex: The majority (80%) said that it "made me happy," 64% reported that "it was a good experience," and 54% said that "it made me feel closer to the other person." In contrast, fewer than half (43%) reported that "I liked how my body felt," and 13% of the girls reported none of these positive consequences of engaging in sex. These descriptive statistics suggest that girls report a range experiences with sexual intercourse: Some experience sex as embodied,

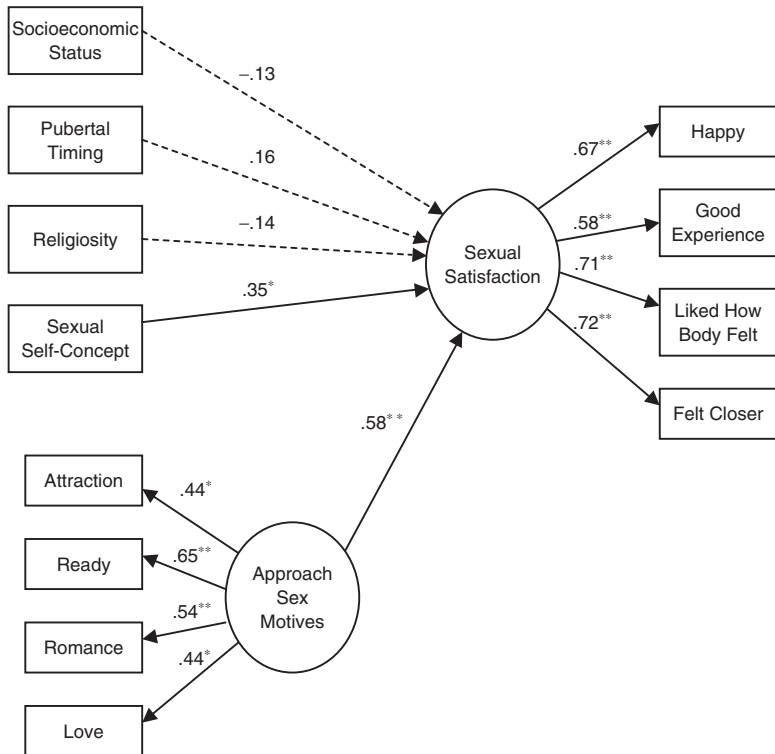


Figure 1. A model of sexual satisfaction for late adolescent girls.

NOTE: $N = 70$. Numbers are standardized regression weights.

* $p < .05$. ** $p < .001$.

satisfying, and intimate, whereas others do not. The small percentage of girls who reported that they liked how their body felt during sex is consistent with research documenting how girls' concerns about how their bodies appear to others interfere with their sexual interest and satisfaction (e.g., Hirschman, Impett, & Schooler, in press; Wiederman, 2000). These findings are also consistent with previous qualitative research in which adolescent girls describe difficulties with desire and pleasure in their sexual relationships (Tolman, 2002). At the same time that society views girls' lack of sexual pleasure as normative, women in heterosexual marriages are supposed to have sexual desire (for their husband); when they do not have desire, they get pathologized and labeled with

a sexual problem (Alperstein et al., 2001; Tolman, 2001). The criteria that are generally used to identify sexual difficulties in adult women characterize much of the female adolescent experience, yet we only problematize these difficulties when women enter adulthood.

The results provided support for our hypotheses linking both sexual self-concept and approach sex motives with girls' sexual experiences and sexual satisfaction. Specifically, the positivity of girls' sexual self-concepts and the extent to which they engaged in sexual intercourse for approach motives were both associated with more sexual experience but not with more intercourse partners. These results suggest that girls with positive sexual self-concepts and girls who engage in sex for approach motives may engage in more frequent and varied sexual experiences but not with more sexual partners than do girls with less positive sexual self-concepts and girls who engage in sex less often for approach motives. Furthermore, both sexual self-concept and approach sex motives were associated with increased sexual satisfaction during the most recent intercourse experience. Taken together, the results about sexual experience and sexual satisfaction suggest that girls with positive sexual self-concepts and girls who engage in sex for approach motives derive sexual satisfaction from sex, but it is likely that the sexual interactions occurred in the context of important and valued dating relationships rather than with casual partners.

Strengths and Theoretical Contributions

A major strength of the current study is the empirical development of a model of sexual satisfaction for late adolescent girls during a period when they are exploring their sexualities and developing into sexual beings. Although numerous studies have identified predictors of sexual satisfaction in adult women, no research that we are aware of has examined the factors that contribute to adolescent girls having positive, satisfying sexual experiences. Interestingly, the current findings are consistent with previous research on adult women that links satisfaction with both sexual self-concept (Andersen & Cyranowski, 1994) and engaging in sex for approach motives (Impett et al., 2005), suggesting a developmental trajectory that likely begins in adolescence. Despite the fact that sexuality is becoming an integral part of girls' lives during adolescence (e.g., Tolman, 2002), little is known about their sexual experiences beyond understanding the factors that are associated with risky sexual behavior. This is particularly true for non-White adolescents who are often excluded from normative developmental analyses of sexuality but who are overrepresented in studies of sexual risk taking (Tolman, Striepe, & O'Sullivan, 2002; Ward, 2001). In the current study, roughly 40% of the girls

were non-White, with Latina girls composing more than one fourth of the sample. An important contribution of this research was in exploring new questions that focus on the positive aspects of girls' sexuality in a somewhat diverse sample of adolescent girls.

In addition, this study adds to a growing body of research demonstrating the utility of approach-avoidance models of motivation in understanding sexuality (e.g., Cooper et al., 1998; Impett et al., 2005). Like most research on adolescent sexuality, previous research guided by approach-avoidance motivational theory has focused on understanding high-risk sexual behavior. The current study drew on approach-avoidance motivational theory to investigate a positive aspect of adolescent girls' sexuality. In short, this study is part of an emerging area of research that focuses on the motivational underpinnings of sexuality.

Limitations and Future Directions

Several limitations of this research deserve comment. First, although the sample included moderate numbers of both White and Latina (mostly Dominican) girls, girls from other ethnic groups (e.g., African American, Asian American) were underrepresented. A girl's sense of herself is intricately bound to sociocultural context and is likely to vary across racial or ethnic group (Byrne, 2002; Markus & Kitayama, 1991). Future research should examine the ways in which ethnicity influences or interacts with a girl's sense of herself as a sexual being. This sample also included a much higher proportion of Catholic girls than are included in the general population. Although socioeconomic status, religiosity, and a girl's physical development were not associated with sexual experiences, sexual motives, or sexual satisfaction in the current study, future research could examine the potential ways in which these factors may interact with adolescents' developing sexual self-concepts and their motivations for engaging in sexual intercourse.

Second, the direction of causal relations remains to be determined. Previous research and theory led us to predict that a girl's sense of herself as a sexual being would influence her motives for engaging in sex, which would in turn influence her sexual satisfaction. Other causal connections are also possible. For instance, it could also be that a girl who generally has sexually satisfying interactions develops a positive sexual self-concept and chooses to engage in sex for approach motives. It is also possible that such a relationship eventually becomes reciprocal in that girls with positive sexual self-concepts engage in sex for approach motives and feel more sexually satisfied; subsequently, the more sexually satisfied they feel, the more they develop a positive sense of themselves as sexual beings and the more likely they are to

engage in sex to pursue positive experiences. Longitudinal research would be particularly helpful in disentangling these causal associations.

Finally, another limitation concerns the measure of sexual satisfaction. In this study, girls answered questions about their sexual satisfaction during their most recent experience of sexual intercourse. Previous research suggests that recent sexual experiences are highly memorable and salient (Kauth, St. Lawrence, & Kelly, 1991). Nonetheless, future research should use more a nuanced measure of sexual satisfaction (i.e., one that assesses sexual satisfaction over multiple occasions). Daily experience methods in which participants report on their sexual satisfaction every day that they engage in sex during a short period would be particularly useful (e.g., Fortenberry et al., 2005; Impett et al., 2005).

This initial study suggests several important directions for future research. This study provides a snapshot of girls at one time point in the 12th grade at the onset of late adolescence. Little attention has been paid to sexuality development in adolescence (Tolman, 2002). These findings suggest that sexual motives and sexual satisfaction may be important components of such developmental trajectories. Winter (1988) theorized that girls' sexual self-concepts become more positive as they mature. Although this hypothesis has never been tested, it seems likely that girls would develop a greater, more consolidated sense of themselves as sexual beings as they mature. Are possible changes in sexual self-concept associated with changes in sexual motives and sexual satisfaction during the course of adolescent development? Are such trajectories shaped by a girl's race, class, or social status? Longitudinal research designs that utilize latent growth curve methods would be ideal to answer such developmental questions and would enable us to examine more directly the causal association among sexual self-concept, sexual motives, and sexual satisfaction in adolescence.

Although this article focuses on the psychological aspects of girls' sexual self-concept, girls' feelings about their sexuality do not develop in a social or cultural vacuum. Images and lessons in the media and interactions with parents, teachers, and peers shape the ways that girls make sense of their sexual experiences and may be pivotal in their sexual choices (Simon & Gagnon, 1986). For example, researchers have found that girls continue to struggle with the sexual double standard, deny their own sexual desires, and restrict their sexual behavior to monogamous heterosexual relationships to avoid being called a slut (Tolman, 2002; Tolman, Hirschman, & Impett, 2006). Sex education teachers sometimes refer to adolescent male sexual desire and pleasure but almost never talk about girls' sexuality as pleasurable, often presenting girls as victims in need of protection (Fine, 1988). Future research should focus on understanding how these social and

cultural forces shape, limit, or enhance girls' abilities to have sexually satisfying relationships.

References

- Alperstein, L., Ellison, C., Fishman, J. R., Hall, M., Handwerker, L., Hartley, H., et al. (2001). A new view of women's sexual problems. *Women and Therapy, 24*, 1-8.
- Andersen, B. L., & Cyranowski, J. M. (1994). Women's sexual self-schema. *Journal of Personality and Social Psychology, 67*, 1079-1100.
- Basson, R. (2001). Using a different model for female sexual response to address women's problematic low sexual desire. *Journal of Sex and Marital Therapy, 27*, 395-403.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 238-246.
- Bentler, P. M. (1995). *EQS structural equations program manual*. Encino, CA: Multivariate Software, Inc.
- Breakwell, G. M., & Millward, L. J. (1997). Sexual self-concept and sexual risk-taking. *Journal of Adolescence, 20*, 29-41.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.
- Buzwell, S., & Rosenthal, D. (1996). Constructing a sexual self: Adolescents' sexual self-perceptions and sexual risk-taking. *Journal of Research on Adolescence, 6*, 489-513.
- Buzwell, S., Rosenthal, D., & Moore, S. (1992). Idealising the sexual experience. *Youth Studies Australia—HIV/AIDS Education Edition, 3*-10.
- Byrne, B. M. (2002). Validating the measurement and structure of self-concept: Snapshots of past, present and future research. *American Psychologist, 57*, 897-909.
- Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319-333.
- Centers for Disease Control and Prevention. (2004). Youth risk behavior surveillance—United States, 2003. *Morbidity and Mortality Weekly Report, 53*, 1-96.
- Chilman, C. (1983). *Adolescent sexuality in a changing American society: Social and psychological perspectives for the human services professions*. New York: John Wiley.
- Christopher, F. S. (2001). *To dance the dance: A symbolic interactional exploration of premarital sexuality*. Mahwah, NJ: Lawrence Erlbaum.
- Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky sexual behavior among adolescents and young adults: A functional perspective. *Journal of Personality and Social Psychology, 75*, 1528-1558.
- Crosby, R. A., Holtgrave, D. R., DiClemente, R. J., Wingood, G. M., & Gayle, J. A. (2003). Social capital as a predictor of adolescents' sexual risk behavior: A state-level exploratory study. *AIDS & Behavior, 7*, 245-252.
- Cyranowski, J. M., & Andersen, B. L. (1998). Schemas, sexuality, and romantic attachment. *Journal of Personality and Social Psychology, 74*, 1364-1379.
- Darling, C. A., Davidson, J. K., & Passarello, L. C. (1992). The mystique of first intercourse among college youth: The role of partners, contraceptive practices, and psychological reactions. *Journal of Youth and Adolescence, 21*, 97-117.

- Ehrhardt, A. A. (1996). Editorial: Our view of adolescent sexuality: A focus on risk behavior without the developmental context. *American Journal of Public Health, 86*, 1523-1525.
- Entwisle, D. R., & Astone, N. M. (1994). Some practical guidelines for measuring youth's race/ethnicity and socioeconomic status. *Child Development, 65*, 1521-1540.
- Erikson, E. (1968). *Identity, youth and crisis*. New York: Norton.
- Fine, M. (1988). Sexuality, schooling, and adolescent females: The missing discourse of desire. *Harvard Educational Review, 58*, 29-53.
- Fortenberry, J. D., Temkit, M., Wanzhu, T., Graham, C. A., Katz, B. P., & Orr, D. P. (2005). Daily mood, partner support, sexual interest, and sexual activity among adolescent women. *Health Psychology, 24*, 252-257.
- Gagnon, J. H., & Simon, W. (1973). Childhood and adolescence. In J. H. Gagnon & W. Simon (Eds.), *Sexual conduct: The social sources of human sexuality* (pp. 27-81). Chicago: Aldine.
- Gray, J. A. (1987). *The psychology of fear and stress* (2nd ed.). New York: Cambridge University Press.
- Heckhausen, H. (1991). *Motivation and action*. Berlin, Germany: Springer-Verlag.
- Hill, C. A., & Preston, L. K. (1996). Individual differences in the experience of sexual motivation: Theory and measurement of dispositional sexual motives. *The Journal of Sex Research, 33*, 27-45.
- Hirschman, C., Impett, E. A., & Schooler, D. (in press). Dis/embodied voices: What late adolescent girls can teach us about sexuality. *Sexuality Research and Social Policy*.
- Holland, J., Ramazanoglu, C., Sharpe, S., & Thomson, R. (1998). *The male in the head: Young people, heterosexuality, and power*. London: Tufnell.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
- Impett, E. A., & Peplau, L. A. (2003). Sexual compliance: Gender, motivational, and relationship perspectives. *The Journal of Sex Research, 40*, 87-100.
- Impett, E. A., Peplau, L. A., & Gable, S. L. (2005). Approach and avoidance sexual motives: Implications for personal and interpersonal well-being. *Personal Relationships, 12*, 465-482.
- Impett, E. A., Schooler, D., & Tolman, D. L. (2006). To be seen and not be heard: Femininity ideology and adolescent girls' sexual health. *Archives of Sexual Behavior, 35*, 129-142.
- Jordan, T. R., Price, J. H., Telljohann, S. K., & Chesney, B. K. (1998). Junior high school students' perceptions regarding nonconsensual sexual behavior. *Journal of School Health, 68*, 289-296.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Hillsdale, NJ: Lawrence Erlbaum.
- Kaiser Family Foundation & *YM Magazine*. (1998). *National Survey of Teens: Teens talk about dating, intimacy, and their sexual experiences*. Menlo Park, CA: Author.
- Kauth, M. R., St. Lawrence, J. S., & Kelly, J. A. (1991). Reliability of retrospective assessments of sexual HIV risk behavior: A comparison of biweekly, three-month, and twelve-month self-reports. *AIDS Education and Prevention, 3*, 207-214.
- Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behavior in the human male*. Philadelphia: W. B. Saunders.
- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1953). *Sexual behavior in the human female*. Philadelphia: W. B. Saunders.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.

- Masters, W. H., & Johnson, V. E. (1966). *Human sexual response*. Boston: Little, Brown.
- McCree, D. H., Wingood, G. M., DiClemente, R., Davies, S., & Harrington, K. F. (2003). Religiosity and risky sexual behavior in African-American adolescent females. *Journal of Adolescent Health, 33*, 2-8.
- Moore, N. B., & Davidson, J. K. (1997). Guilt about first intercourse: Antecedent of sexual dissatisfaction among college women. *Journal of Sex and Marital Therapy, 23*, 29-46.
- O'Sullivan, L. F., Meyer-Bahlburg, H. F. L., & McKeague, I. W. (2006). The development of the Sexual Self-Concept Inventory for early adolescent girls. *Psychology of Women Quarterly, 30*, 139-149.
- Phinney, V. G., Jensen, L. C., Olsen, J. A., & Cundrick, B. (1990). The relationship between early development and psychosexual behaviors in adolescent females. *Adolescence, 25*, 321-332.
- Rosenthal, S. L., Burklow, K. A., Lewis, L. M., Succop, P. A., & Biro, F. M. (1997). Heterosexual romantic relationships and sexual behaviors of young adolescent girls. *Journal of Adolescent Health, 21*, 238-243.
- Sawyer, R. G., & Smith, N. G. (1996). A survey of situational factors at first intercourse among college students. *American Journal of Health Behavior, 20*, 208-217.
- SIECUS. (1995). *Consensus statement from the National Commission on Adolescent Sexual Health*. New York: Author.
- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: Permanence and change. *Archives of Sexual Behavior, 15*, 97-120.
- Sprecher, S., & Cate, R. M. (2004). Sexual satisfaction and sexual expression as predictors of relationship satisfaction and stability. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.), *The handbook of sexuality in close relationships* (pp. 57-86). Mahwah, NJ: Lawrence Erlbaum.
- Stein, K. F., Roeser, R., & Markus, H. R. (1998). Self-schemas and possible selves as predictors and outcomes of risky behaviors in adolescence. *Nursing Research, 47*, 96-106.
- Thompson, S. (1990). Putting a big thing into a little hole: Teenage girls' accounts of sexual initiation. *Journal of Sex Research, 27*, 341-362.
- Tolman, D. L. (1999). Femininity as a barrier to positive sexual health for adolescent girls. *Journal of the American Medical Women's Association, 54*, 133-138.
- Tolman, D. L. (2001). Female adolescent sexuality: An argument for a developmental perspective on the new view of women's sexual problems. *Women and Therapy, 24*, 195-209.
- Tolman, D. L. (2002). *Dilemmas of desire: Teenage girls talk about sexuality*. Cambridge, MA: Harvard University Press.
- Tolman, D. L., Hirschman, C., & Impett, E. A. (2006). There's more to the story: The place of qualitative research on female adolescents in sexuality-related policymaking. *Sexuality Research and Social Policy, 2*, 4-17.
- Tolman, D. L., & Porche, M. V. (2000). The Adolescent Femininity Ideology Scale: Development and validation of a new measure for girls. *Psychology of Women Quarterly, 24*, 365-376.
- Tolman, D. L., Striepe, M. I., & Harmon, T. (2003). Gender matters: Constructing a model of adolescent sexual health. *The Journal of Sex Research, 40*, 4-12.
- Tolman, D. L., Striepe, M. I., & O'Sullivan, L. F. (2002). How do we define sexual health for women? In L. Slater, J. H. Daniel, & A. E. Banks (Eds.), *The complete guide to mental health for women* (pp. 74-81). Boston: Beacon.
- Tsui, L., & Nicoladis, E. (2004). Losing it: Similarities and differences in first intercourse experiences of men and women. *Canadian Journal of Human Sexuality, 13*, 95-106.
- Ward, J. (2001). *The skin we're in: Teaching our children to be socially smart, emotionally strong, spiritually connected*. New York: Free Press.

- Wiederman, M. W. (2000). Women's body image self-consciousness during physical intimacy with a partner. *Journal of Sex Research, 37*, 60-68.
- Winter, L. (1988). The role of sexual self-concept in the use of contraceptives. *Family Planning Perspectives, 20*(3), 123-127.

Emily A. Impett, PhD, is a research associate at the Center for Research on Gender and Sexuality at San Francisco State University. Her research uses surveys, daily experience, and longitudinal studies to examine how motivational processes shape the romantic and sexual lives of adolescents and young adults.

Deborah L. Tolman, EdD, is the director of the Center for Research on Gender and Sexuality and professor of human sexuality studies at San Francisco State University. Her research interests include the development of gender, relationships, and sexuality in adolescence and more specifically how messages about masculinity and femininity affect boys' and girls' abilities to pursue healthy relationships.