

A Prospective Study of Young Females' Sexual  
Subjectivity: Associations with Age, Sexual Behavior, and Dating

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**ABSTRACT**

Sexual self-perceptions are important aspects of sexuality, which can undergo significant change during adolescence and early adulthood. The purpose of this study was to describe these changes among girls ( $N = 251$ ; ages 16 to 25) over one year, and to examine associations of sexual self-perceptions (*sexual subjectivity*) with age, sexual behavior, and romantic status. Sexual body-esteem, perceptions of entitlement to desire and pleasure, sexual efficacy, and sexual self-reflection were investigated as elements of sexual subjectivity. All sexual subjectivity elements were higher among girls who had more sexual experience and/or had steady romantic partners during the study. Perception of entitlement to desire and pleasure increased over time, whereas sexual body-esteem showed the most stability and had minimal associations with sexual or romantic experiences. The greatest increases in sexual subjectivity were found among girls who began the study with the least sociosexual experience and self-reflection also increased for girls who had first coitus after the start of the study. Overall, girls who had sexual intercourse the earliest (before age 16) had the highest sexual subjectivity, but sexual subjectivity increased the most among girls without coital experience or who had more recent first coitus.

**KEY WORDS:** sexuality, sexual behavior, romantic relationships, dating, self-perceptions

## INTRODUCTION

There are many important life experiences during adolescence and early adulthood that can impact significantly upon sexual health (Coontz, 2006; Impett & Tolman, 2006; Savin-Williams & Diamond, 2004; Zimmer-Gembeck & Helfand, 2008), and these may be foundations for lifelong sexual development (O'Sullivan & Majarovich, 2008). Despite this, only very recently have there been advances toward a developmental research agenda focused on positive sexual health promotion (Barber & Eccles, 2003; Diamond, 2006; O'Sullivan, Meyer-Bahlburg, & McKeague, 2006). To date, identifying the components of healthy sexuality and determining how and when sexual cognitions, emotions, and behaviors are associated with greater well-being and other positive outcomes have been the most prominent outcomes of this new agenda (Diamond, 2006; Horne & Zimmer-Gembeck, 2005). One program designed to support the development of positive sexual health, *Girl Time*, echoes this sentiment regarding the positive outcomes that can follow when key components of healthy sexual development are clearly defined and become the focus of intervention and support programs (Brunk et al., 2008).

This new research agenda on positive sexual development has also been viewed as a complement to the majority of past research on females' sexual behavior during adolescence as a source of risk (Bay-Cheng, Robinson, & Zucker, 2010; Diamond, 2006; Savin-Williams & Diamond, 2004). For instance, although much research has identified that there are health and emotional risks associated with early sexual behavior (Zimmer-Gembeck & Helfand, 2008), sexual behavior has also been associated with greater feelings of entitlement to sexual pleasure, sexual self-efficacy, and sexual self-reflection, and these sexual self-perceptions have been linked to positive psychological and social functioning (Horne & Zimmer-Gembeck, 2005; Zimmer-Gembeck & Helfand, 2008).

The study of adolescents' sexual self-perceptions, therefore, is a recent advance in the study of positive adolescent and young adult sexual development. This has been led by a call to focus on the "broader landscape of adolescent sexuality in our culture" (Russell & Consolacion, 2003, p. 499), to not "...treat sexual behavior as if it occurs in a vacuum..." (Diamond, 2006, p. 4), and to consider the complexities of adolescent sexuality (Diamond, 2008). These calls for more inclusive study of the whole of sexuality and sexual health have come from the recognition that individual sexual attitudes, perceptions, and related cognitions are core to sexual health and that sociosexual attitudes and perceptions are linked to sexual behavior and relationships (O'Sullivan, 2005; Horne & Zimmer-Gembeck, 2005, 2006; Zimmer-Gembeck & Helfand, 2008). Although there have been vital qualitative studies on the nature and development of sexuality among girls (e.g., Bryant & Schofield, 2007; Fine, 1988; Martin, 1996; Thompson, 1995; Tolman, 1994, 2002), only recently has there been interest in the interface between perceptions of sexuality and sexual and romantic behavior (Boislard, Green-Demers, Pelletier, Chartrand, & Séguin, 2002; Florsheim, 2003; Zimmer-Gembeck, Siebenbruner, & Collins, 2004).

### **Sexual Subjectivity Defined**

In the current study, sexual self-perceptions were referred to as *sexual subjectivity* to reflect the terminology used in existing theoretical perspectives and qualitative research on females' sexual self-perceptions and feelings about sex (Martin, 1996; Thompson, 1995; Tolman, 1994, 2002). For example, Martin (1996) defined sexual subjectivity as the perception of pleasure from the body and the experiences of being sexual, and Tolman (2002) described how girls' sexual subjectivity involves a capacity to experience entitlement to sexual pleasure and sexual safety, and to be aware of social forces against possessing such entitlements. Hence,

sexual subjectivity includes five elements encompassing girls' sexual body-esteem, their perceptions of their own entitlements to sexual desire and pleasure (from self and others), their sexual self-efficacy, and their sexual self-reflection, which were confirmed in previous research (Horne & Zimmer-Gembeck, 2006). These elements of sexual subjectivity were identified by reviewing key theoretical models of adolescent sexuality development (Brooks-Gunn & Paikoff, 1993; Tolman, Striepe, & Harmon, 2003), definitions of sexual health (Brooks-Gunn & Paikoff, 1993; Bukowski, Sippola, & Brender, 1993; Haffner, 1998), and empirical research (Burch, 1998; Holland, Ramazonoglu, Sharpe, & Thomson, 1992; Martin, 1996; Thompson, 1995; Tolman, 2002).

The first element of sexual subjectivity was sexual body-esteem, defined as positive feelings about the body. Previous research on sexual body-esteem included self-perceptions of sexual attractiveness and desirability and demonstrated that perceived attractiveness forms part of an individual's conceptualization of his/her sexuality (Buzwell & Rosenthal, 1996). To assess sexual body-esteem as the first element of sexual subjectivity in the current study, however, we purposefully diverged from several existing instruments that have emphasized self-perceptions of body shape and size (e.g., Mendelson, Mendelson, & White, 2001) in order to focus specifically on self-perceptions of body-esteem in the sexual context only.

Sexuality has also been described as coming to recognize desire and understanding what it means to experience pleasure from the body (Tolman, 1999, 2002). It is well known that pubertal development is associated with the onset of sexual interests, desire, and behavior (Brooks-Gunn & Paikoff, 1993; Zimmer-Gembeck & Helfand, 2008). However, rather than focusing on physiological changes and associated desires, the next three elements of sexual subjectivity assessed cognitive and emotional components, such as recognizing and feeling entitled to

attraction, desire and pleasure, and feelings of efficacy to regulate or avoid sexual interactions (for a similar view, see Nicholson, 1994). Adolescent girls' desires for sexual exploration and pleasure have not often been empirically researched (for exceptions, see Fine, 1988; Martin, 1996; Tolman, 1994; Welsh, Rostosky, & Kawaguchi, 2000). Nevertheless, Tolman (1999, 2002) described the variability in how girls understand their own desires, maintain their relationships, and protect themselves when needed. Extending on this view, entitlement and efficacy for sexual desire and pleasure have been defined with reference to the self separate from the partner. Similarly, perceptions and feelings about sexual entitlement can be separated from more general sexual self-efficacy (Horne & Zimmer-Gembeck, 2005, 2006). Hence, we included three additional subscales of sexual subjectivity that assessed (1) a sense of self-entitlement to sexual desire and pleasure, (2) a sense of entitlement to sexual desire and pleasure from a partner, and (3) self-efficacy in regulating sexual desire and pleasure.

Finally, the fifth aspect of sexual subjectivity measured was sexual self-reflection. Reflection on experience is a key way of coming to know the world and the self (Bandura, 1989). Adolescents' cognitive advances make self-reflection easier and increasingly common (Keating, 1990). Self-reflection enables adolescents to consider their experiences, make attributions about events, and to plan responses and future behaviours (Zimmer-Gembeck & Skinner, 2011). Moreover, reflection on sexual and romantic interests is a common occurrence among adolescents (Larson, Clore, & Wood, 1999). The ability to reflect critically on sexual experiences and make decisions about future sexual strategies and behaviors can be an important component of healthy sexual development (Cyranowski & Anderson, 1998).

To summarize, sexual body-esteem, self-entitlement to desire and pleasure, entitlement to desire and pleasure from a partner, sexual self-efficacy, and sexual self-reflection were identified

as five foundational aspects of positive sexuality and well-being. In past research, these five elements of sexual subjectivity were associated with positive mental health and psychosocial functioning (Horne & Zimmer-Gembeck, 2005, 2006). Moreover, positive associations with conceptually-related measures of sexual self-concept and intrinsic sexual motivation have been reported for safe sexual practices (Schick, Zucker, & Bay-Cheng, 2008) and sexual satisfaction (Boislard et al., 2002; Impett & Tolman, 2006; Schick et al., 2008). For example, a composite measure including sexual consciousness and sexual assertiveness (constructs similar to sexual subjectivity) mediated the association between feminist ideology and both condom-use self-efficacy and sexual satisfaction among college students (Schick et al., 2008).

### **Sexual Subjectivity, Age, and Experience**

Elements of sexuality subjectivity are likely to progress with increasing age and sexual experience. Just like other developmental tasks of adolescence and emerging adulthood that are expected to advance with increasing age, such as autonomy and identity (Arnett, 2000; Kroger, 2003; Zimmer-Gembeck & Collins, 2003), sexuality is a developmental task particularly relevant to the period of adolescence and emerging adulthood. Hence, sexual subjectivity should progress during this period of life, and these changes should be associated with both age and sociosexual experiences. One cross-sectional study has supported these associations (Horne & Zimmer-Gembeck, 2005), finding that sexual subjectivity was higher among girls in their early 20s compared to girls in their late teens, and females with earlier onset of sexual intercourse (before age 17) were higher in all aspects of sexual subjectivity when compared to females with later onset of intercourse or who had no history of sexual intercourse. However, no prospective study of sexual subjectivity and its correlates has been published. In a related area of research, one longitudinal study (Buzwell, 1995) did provide additional support by showing that increasing

sexual experiences were associated with more sexual efficacy. Other studies showed that increasing age accompanied improvements in adolescents' capacity to make autonomous decisions about abstaining or not from sexual behavior, in greater feelings of control over their behaviors, and more positive views of their sexual feeling and desires (Brady & Halpern-Felsher, 2008; Skinner, Smith, Fenwick, Fyfe, & Hendriks, 2008).

### **The Current Study**

The overarching purpose of the current study was to describe girls' sexual subjectivity over one year. In addition to expecting that there would be increases in sexual subjectivity over time, we also examined age, sexual experience, and romantic relationship status as correlates of patterns of sexual subjectivity over one year. There were four specific study aims. The first aim was to describe changes in sexual subjectivity over a 1-year period among females aged 16 to 25 years, and to compare changes between age groups (e.g., adolescents versus emerging adults). Although sexual self-perceptions most likely change after age 25 and perhaps throughout life, many individual and social factors coalesce to make the late teenage years and early 20s a time when the foundations for sexuality should be increasingly incorporated into an individual's sense of self (Florsheim, 2003; Moore & Rosenthal, 1993). New sexual and relationship experiences occur in rapid succession, and most individuals form their first close, steady dating relationships and have their first experiences of sexual behavior that include genital contact during this time period (Furman, Brown, & Feiring, 1999; Zimmer-Gembeck, 1999; Zimmer-Gembeck & Helfand, 2008).

Our second aim was to determine whether the pattern of sexual subjectivity over time differed depending on the experience of a range of sexual behaviors. Between-group comparisons of patterns of sexual subjectivity were completed after females were grouped



according to their different experiences from kissing to sexual intercourse. In the current study, it was expected that increasing sexual subjectivity would be found among groups with a history of sexual intercourse, compared to their counterparts without such a history. Yet, we also distinguished and compared groups based on other sexual experiences. It has been reported that changes in sexual cognitions were more closely linked to the transition to noncoital sexual activities than to the onset of first sexual intercourse (O'Sullivan & Brooks-Gunn, 2005). Therefore, we expected that girls with no history of sexual intercourse but other sexual experiences (*experienced virgins*) would be higher in sexual subjectivity and experience greater increases in sexual subjectivity over time when compared to girls who had no experience with genital contact with a partner (i.e., *inexperienced virgins*).

The third study aim was to better isolate whether sexual intercourse experience preceded or followed from sexual subjectivity. We identified a group of girls who had first sexual intercourse during the study and compared these girls to those who never had sexual intercourse, and to others who had first sexual intercourse prior to the first wave of data collection. We expected that engaging in first sexual intercourse during the study period would be associated with greater increases in sexual subjectivity compared to females who previously had or were yet to have experience with sexual intercourse.

The fourth and final study aim was to compare the sexual subjectivity over time of groups differentiated by their romantic relationship status. Although most studies of adolescent sexuality have not conjointly considered the role of the relational context (Welsh et al., 2000), the development of sexuality should depend upon involvement in intimate relationships. Cognitions central to sexual health accompany social experiences, especially involvement with romantic partners (Tolman et al., 2003) and romantic relationships are developmental contexts

that socialize girls' appraisals of themselves (Graber & Sontag, 2006) and their sexual relationships (Boislard et al., 2002). Positive interactions in close relationships can provide security and give support for sexual agency. Given the potential for greater involvement in noncoital and coital sexual activities within a steady relationship, and that the context for sexual exploration, communication, and experience is frequently within dating relationships (Carver, Joyner, & Udry, 2003; O'Sullivan, 2005; Zimmer-Gembeck & Helfand, 2008), it was expected that girls who had steady romantic partners at both waves of the study would have higher levels and more increases in sexual subjectivity over time than other girls.

## **METHOD**

### **Participants**

Participants were 251 females age 16 to 25 years ( $M = 19.63$ ,  $SD = 2.24$ ) who completed two waves of data collection separated by an average of one year (range, 11 to 14 months). The initial Time 1 (T1) sample included 378 girls. Participants were approached on two campuses of a large Australian university during the one week prior to the start of the first semester and the first week of classes ("orientation week"). Researchers approached females while they were between orientation sessions in common outside campus areas set-up to provide shopping and information for incoming students. About 94% of the 251 participants were university students. The remaining participants were technical college students or nonstudents who were on campus in orientation week to visit information booths or shop at open-air markets. In the area of Australia where this study was conducted, it is typical for university students to be 17 years of age in their first year, with some as young as 16 years.

Most participants were white/Caucasian (82%), lived with both biological parents (69%), and reported they were attracted to the other sex only and had never had same-sex sexual

experience (80%). However, there was some diversity. Of note was the large percentage of participants with parents who did not complete high school (21% of fathers and 25% of mothers) and the 20% of participants who reported same-sex attraction, experience, or who were unsure about their sexual orientation. When participants with or without same-sex attraction or sexual experiences were compared, there were no significant differences in their other sexual behavior history (including experience with sexual intercourse), partner status, or age.

Girls maintained in the longitudinal sample were compared to those who failed to complete the T2 assessment (*T1 only group*). Girls in the T1 only group were slightly older ( $M = 20.3$  years,  $SD = 2.5$ ) than the longitudinal sample ( $M = 19.3$  years,  $SD = 2.0$ ),  $p < .01$ . There was no significant group difference in sexual subjectivity, sexual experience or sexual orientation. There was a significant difference in relationship status; participants in the longitudinal sample were more likely to have a steady partner (53% vs. 38%),  $p < .05$ .

## Measures

### *Sexual subjectivity*

The Female Sexual Subjectivity Inventory (FSSI; Horne & Zimmer-Gembeck, 2006) was used to assess five elements of sexual subjectivity: (1) sexual body-esteem, (2) self-entitlement to sexual desire and self-pleasure, (3) entitlement to sexual pleasure from a partner, (4) self-efficacy in achieving sexual pleasure, and (5) sexual self-reflection. The FSSI included 20 items. Responses ranged from 1 (*strongly disagree*) to 5 (*strongly agree*) for each item. Appropriate subscale items were averaged to form composite measures with higher scores reflecting more sexual subjectivity. Sample items for the FSSI include: “I am confident that others will find me sexually desirable” (sexual body-esteem), “I think it is important for a sexual partner to consider my sexual pleasure” (sexual desire and pleasure), and “I spend time thinking and reflecting about

my sexual experiences” (sexual self-reflection). All scales (and subscales of sexual desire and pleasure) had high reliability. Cronbach’s  $\alpha$  ranged from .74 to .86 at T1 and from .75 to .89 at T2.

### *Sexual behavior*

Sexual intercourse (coitus) was assessed through a self-report question, “In your lifetime, how many times have you willingly had sexual intercourse (“gone all the way,” “made love”)?” Possible responses included *never* (1), *I have only had sexual intercourse 1 or 2 times* (2), *3 to 10 times* (3), *11 to 20 times* (4), and *more than 20 times* (5). For the purposes of the present study, this variable was recoded to indicate whether or not each participant had a history of sexual intercourse (coital status). Age of first sexual intercourse was determined with one question: “How old were you the first time you willingly had sexual intercourse?”

In addition to sexual intercourse, a range of other sexual experiences was assessed. These sexual experiences included romantic kissing, sexual fantasizing, self-masturbation, light petting (being touched/fondled above the waist), heavy petting (being touched/fondled below the waist), oral sex (giving), oral sex (receiving), orgasm as a result of masturbation, petting or oral sex, sexual intercourse, sexual intercourse leading to your partner’s orgasm, and sexual intercourse leading to your own orgasm. Participants indicated all that they had experienced. With the exception of romantic kissing, girls without a history of sexual intercourse were significantly less likely to have experienced all other forms of sexual behavior when compared to girls with a history of sexual intercourse,  $\chi^2(1)$  ranged from 37.7 to 208.5, all  $p < .01$ .

Two composite measures of sexual behavior were formed. The first measure was a sum of the different sexual behaviors reported by each participant. For the second measure, five sexual experience groups were formed based on a history of sexual intercourse and other sexual

experiences at T1. Girls who reported never experiencing sexual intercourse were subdivided into two groups. The first group comprised girls who reported no experience at all with genital sexual activity with a partner (i.e., heavy petting, giving or receiving oral sex, orgasm), a group labelled *inexperienced-virgins* (16%). The second group included girls who reported at least one experience with genital sexual activities but no intercourse: the *experienced-virgins* (11%).

Females who reported experience with sexual intercourse were subdivided into three groups based upon their age at first sexual intercourse: *before age 16* (16%), *at 16 years old* (23%) or *after age 16* (34%).

#### *Relationship status*

Participants indicated whether or not they had a current, steady romantic relationship at both waves of data collection. Four groups were formed, including girls who reported no steady partner at each wave (*neither*, 32%), those who reported a steady partner at the time 1 (T1) assessment only (*T1 only*, 10%), those who reported a steady partner at the time 2 (T2) assessment only (*T2 only*, 16%), and those who reported a steady partner at both waves (*both*, 42%).

#### **Procedure**

University ethical approval was obtained prior to data collection and participants provided informed consent for participating. Participants completed the same set of measures at T1 and T2. At T1, researchers supervised survey administration and participants received a chocolate bar and prize draw entry for one of two gift vouchers. Contact details for follow-up were collected on separate forms to maintain participant confidentiality. Each participant supplied a personal code, which could easily be replicated. At T2, participants were mailed a copy of the survey, which also included a letter about how they could access and complete the survey online, if

preferred. Participants received a movie ticket for their participation at T2. Most completed the questionnaire booklet and returned it via mail, but 75 (30%) participants selected to complete the Web version of the survey.

## **RESULTS**

### **Descriptive Information and Correlations**

Table 1 presents descriptive statistics for sexual subjectivity and bivariate correlations between T1 and T2 sexual subjectivity subscales, sexual behavior, and age. The five elements of sexual subjectivity had low to moderate correlations with each other,  $r$ 's ranged from  $-.02$  to  $.50$ , and were moderately stable over the two waves of assessment,  $r$ 's ranged from  $.43$  to  $.75$ , all  $p < .01$ . Age was significantly positively but weakly correlated with T1 self-entitlement to sexual pleasure,  $r = .15$ , and T1 entitlement to pleasure from a partner,  $r = .16$ , both  $p < .05$ . The sum of T1 sexual behaviors was associated with all elements of sexual subjectivity except T2 entitlement to sexual pleasure from a partner,  $r$ 's ranged from  $.14$  to  $.47$ , all  $p < .05$ .

### **Sexual Subjectivity as a Function of Age**

To further examine the association between sexual subjectivity and age, mixed effects ANOVAs were conducted to contrast sexual subjectivity from T1 to T2 between age groups. Age groups were used given previous research showing where age differences are most likely to be found (Horne & Zimmer-Gembeck, 2005). In these models, time ( $\times 2$ ) was a within-subject factor (repeated measure) and age group in years ( $\times 6$ ) was the between-subject factor. In each of five models, an element of sexual subjectivity was the dependent variable. The anticipated main effect of age was not found in any of these analyses. There were, however, significant increases over time in two sexual subjectivity elements: self-entitlement to sexual desire and pleasure,  $F(1, 245) = 22.2, p < .01$ , and entitlement to desire and pleasure from a partner,  $F(1, 245) = 10.6, p < .01$ .

.01. There were no significant time  $\times$  age interactions, showing that the patterns of sexual subjectivity over time did not significantly differ by age group.

### **Sexual Subjectivity as a Correlate of Sexual Behavior**

Correlational analyses identified associations between the sum of sexual behaviors and sexual subjectivity (see Table 1). To further examine these associations, mixed effects ANOVAs were used to compare patterns of sexual subjectivity from T1 to T2 between groups based on their sexual behavior history. Five groups were compared, including sexually inexperienced virgins, sexually experienced virgins, and three non-virgin groups characterized by their age at first sexual intercourse (before age 16, at age 16, and after age 16). In each of the five models, an element of sexual subjectivity was the dependent variable and age group was also included as a second between-subject factor (3 groups; age 18 or less, age 19-20, and 21 and older). There was a significant main effect of T1 sexual behavior group for all sexual subjectivity elements except sexual body-esteem (see Table 2). For these four elements that differed between sexual experience groups, Bonferroni pairwise comparisons revealed that it was inexperienced virgins who were lower in sexual subjectivity when compared to girls with a history of sexual intercourse. Experienced virgins fell in between and did not differ from inexperienced virgins or girls with a history of sexual intercourse.

A follow-up within-subjects ANOVA was conducted to examine change in sexual subjectivity from T1 to T2 for each sexual behavior group. The results showed that self-entitlement to sexual desire and pleasure increased over time for each group except for inexperienced virgins (see Fig. 1). Self-entitlement to sexual pleasure at T1 was highest among girls who initiated first intercourse the earliest (before age 16) and inexperienced virgins were the lowest, both  $p < .01$ . By T2, girls who had first intercourse at age 16 or earlier were highest

in self-entitlement to sexual pleasure, whereas inexperienced virgins were lowest, all  $p < .01$ . The experienced virgins and the girls who had first intercourse at age 17 or later (the middle timing group) fell in between and were higher in entitlement than inexperienced virgins and lower than girls who had first intercourse at age 16 or earlier, all  $p < .05$ .

For entitlement to sexual pleasure from a partner, two groups significantly increased over time: T1 inexperienced virgins and T1 experienced virgins, both  $p < .05$  (see Fig. 2). Although both groups of virgins started lower when compared to each group of girls who already had a history of sexual intercourse at T1 (all  $p < .01$ ), the significant interaction between time and sexual experience group showed that the virgins increased significantly more over time. Hence, by T2, virgins and the group of girls who had first intercourse after age 16 had caught up with other girls resulting in no sexual experience group difference in entitlement to sexual pleasure from a partner at T2.

### **Sexual Subjectivity and the Onset of Sexual Intercourse**

In order to test whether sexual intercourse may be a proximal correlate of changes in sexual subjectivity over time, we were particularly interested in the girls who reported first coitus between T1 and T2. Three sexual transition groups were identified: those who reported (1) no experience with coitus at T1 and T2 (*virgins*), (2) first coitus between T1 and T2 (*initiators*), and (3) experience with coitus at T1 (*nonvirgins*). Mixed effects ANOVA results adjusting for age showed three significant time  $\times$  transition group interactions for entitlement to sexual desire and pleasure from a partner, self-efficacy in achieving sexual pleasure, and self-reflection (see Table 3). Comparisons and follow-up analyses showed that virgins and initiators were significantly lower in entitlement to sexual pleasure from partners and self-efficacy at T1 when compared to



nonvirgins, but they increased more over time, both  $p < .01$ . By T2, there was no group difference in either entitlement to sexual pleasure from partners or in self-efficacy.

For sexual self-reflection, the pattern was similar but in this case initiators stood out from both nonvirgins and virgins, showing a greater increase in reflection from T1 to T2. By T2, initiators were highest in self-reflection whereas virgins reported significantly less sexual self-reflection than both initiators and nonvirgins.

### **Sexual Subjectivity as a Correlate of Romantic Partner Status**

Finally, mixed effects ANOVAs were estimated to compare sexual subjectivity between girls who reported different romantic status patterns from T1 to T2. In these model, we compared girls without steady partners at T1 and T2 (*neither*), girls with a partner at T1 but not T2 (*T1 only*), girls with a partner at T2 but not T1 (*T2 only*), and girls with a steady romantic partner at both T1 and T2 (*both*). Having a partner during the study was associated with three of the five elements of sexual subjectivity (see Table 4). Girls with steady romantic partners at T1, T2 and/or at both times were higher in self-entitlement to sexual pleasure, self-efficacy, and sexual self-reflection than girls who did not have a partners at either T1 or T2. There were no significant romantic status group differences in patterns of sexual subjectivity over time.

## **DISCUSSION**

The findings from this prospective study illustrated how multiple aspects of adolescent and young females' (aged 16 to 25 years) sexual self-perceptions (*sexual subjectivity*) progressed over time and were more consistently associated with their sexual behaviors and romantic status than with age. Five elements of sexual subjectivity were investigated, including sexual body-esteem, perceptions of self-entitlement to sexual desire and pleasure, perceptions of entitlement to pleasure from a partner, sexual self-efficacy, and engagement in sexual self-reflection.

All five elements of sexual subjectivity increased in relation to having more diverse sexual experience. In bivariate correlations, all elements of sexual subjectivity were higher in girls who had a greater range of experience with different sexual behaviors. Further evidence for the importance of a progression of sexual experience for sexual subjectivity was found when girls who were virgins at the start of the study were compared to (1) those who had first coitus during the study (initiators) and (2) girls who already had a history of coitus at the start of the study. These comparisons showed that nonvirgins were higher than virgins in all elements of sexual subjectivity with the exception of sexual body-esteem, with initiators falling in-between these two groups. In addition, three elements of sexual subjectivity were higher among girls who had steady romantic partners at the two waves of this study compared to other groups (no partner, partner at time 1 only, partner at time 2 only).

In addition to finding sexual subjectivity to be higher in some groups of girls, some elements of females' sexual subjectivity also increased over time. In particular, self-entitlement to sexual desire and pleasure and entitlement to pleasure from a partner increased most significantly across the 12 months of this study. These increases were found for almost all groups that were formed based on sexual or romantic experience but were even greater for girls with no history of sexual intercourse (either with or without other genital sexual experience) and for girls who had first intercourse during the study. These findings suggest that girls gain greater feelings of their own entitlement to pleasure and desire as they have more sexual experience and in the dyadic context with a romantic partner. These elements of sexual subjectivity often depend on a partner, and may be especially enhanced when sexual and romantic partnerships include features similar to a close and satisfying friendship or occur between partners who report that they are also good friends (Bay-Cheng et al., 2010).

Although it was entitlement to sexual desire and pleasure that increased most significantly for the participants in this study, self-efficacy and sexual self-reflection also increased, but only for girls who did not have a history of intercourse throughout the study year and for those who had first coitus during the study. Therefore, among girls ages 16 to 25, it was those *without* sexual intercourse experience or who had their first experiences quite recently who reported the most prominent increase in their perceptions of their entitlements, self-efficacy, and self-reflection. This suggests that it may be the novelty of sexual experience that prompts the most rapid change in sexual subjectivity.

Multiple theories identify how growth can follow major life events, especially when making sense of an event depends on cognitive appraisals and reworking old ideas about the self and the social world (Updegraff & Taylor, 2000). Similarly, in a developmental systems model of sexuality, Halpern (2006; see also Chorousos, 1998) argued that sexual experimentation may be adaptive for emotional and cognitive growth, even though it may also be risky. Such theories and related research have almost exclusively emphasized changes in self-perceptions and well-being as related to major negative and stressful life events. Yet, the findings of increased perceptions of entitlement to sexual desire and pleasure, sexual self-efficacy, and self-reflection among the groups of girls who reported the most recent new sexual experience suggest that they also prompt reflection and change in ways of thinking and feelings about the self and relationships to others. Taken together, this may suggest that novel and significant events that come with high levels of emotional arousal, whether negative or positive, may yield significant cognitive and emotional change, by either promoting growth or decline depending on the events themselves and the many related contextual and personal characteristics that come with these experiences.

Past research has confirmed this view by finding that first sexual intercourse is one major life event associated with the some abrupt changes in sexual self-perceptions (e.g., Rosenthal, Moore, & Flynn, 1991; Rosenthal, Smith, & de Visser, 1999). However, other research findings suggest that first sexual intercourse may not be the critical experience for sexual development (Abma, Driscoll, & Moore, 1998; Koch, 1988; O'Sullivan & Brooks-Gunn, 2005). Our findings suggest that both may be the case: sexual intercourse is a major life event for most young people and it is associated with some significant changes in sexual subjectivity, but it is likely that it is a range of sociosexual interactions, in addition to sexual intercourse specifically, that can prompt increases in sexual subjectivity. On average, girls who reported the earliest age of sexual intercourse reported the highest level of sexual subjectivity. Yet, sexual subjectivity increased over time the most among girls without the experience of sexual intercourse or who had the most recent experience. We suspect that it is experiences particularly related to understanding sexual interactions with a partner (e.g., communication about possible or actual sexual behavior) and practice with initiating, asking for and receiving or avoiding different types of sexual interactions (including having feedback from a partner) that are most important for acquiring sexual subjectivity. Many of these interactions will occur with sexual and/or romantic partners in which there is a high level of intimacy (Bay-Cheng et al., 2010). We expect that it is the intimacy and ability to freely communicate with partners about sexual and intimacy-related needs and desires that are most important for the development of sexual subjectivity.

Two sexual subjectivity elements (i.e., sexual body-esteem and sexual self-reflection) were quite highly correlated between T1 to T2 in this study. Self-esteem and general self-worth are often found to be quite stable over time (Brinthaup & Lipka, 2002), which could partly explain the stability found in sexual body-esteem. Previous research has shown a moderate

correlation between sexual body-esteem and global self-esteem (Horne & Zimmer-Gembeck, 2005). In addition to its stability over time, we found only one correlate of sexual body-esteem. Girls who had a greater range of sexual behaviors also reported greater sexual body-esteem. The few correlations of sexual body-esteem with age and behavior was not completely surprising, however, since we did anticipate that it could be a wider range of sexual experiences that have positive or negative implications for sexual body-esteem, rather than the experience of coitus. These findings also suggest that feeling esteem for one's body in the sexual domain may not depend on romantic status, but it does not rule out the possibility that direct feedback from a partner about their satisfaction via their displays of warmth and higher levels of involvement may have important implications for body self-esteem. Previous studies have shown links between relationship quality, well-being, and self-esteem (Reis, Collins, & Berscheid, 2000).

It is less clear why sexual self-reflection was so stable over time. One explanation could be the age of participants and the short time elapsed in this study. Adolescence and early adulthood are age periods when considering life choices, making role transition, and developing identity and goals are prominent life tasks (Arnett, 2000; Zimmer-Gembeck & Collins, 2003). Reflection may be critical during this period of life to aid such developmental tasks, and a 1-year period may not have been lengthy enough to capture any significant changes in self-reflection. A second possibility is that, compared to sexual entitlement and efficacy, reflection may be more closely tied to rather stable individual differences, such as personality. For example, some people seem to naturally deliberate about their relationships and other important transitions in their lives more than others (Gagne & Lydon, 2001). We did find, however, that the total number of different sexual experiences and age were positively correlated with self-reflection at Time 1. We also found that sexual self-reflection was lower among virgins compared to nonvirgins and

among those who did not have a romantic partner at either wave of data collection compared to group of girls who reported having a romantic partner. As described previously, it may be that self-reflection assists with the development of sexual subjectivity only when certain new experiences or events occur and challenge current ways of thinking, feeling, and behaving. Specifically, engaging in a new relationship or in a new type of sexual experience may enhance self-reflection by challenging self-perceptions that otherwise would not be challenged and subject to reflection.

Regarding age and sexual subjectivity, we found very few associations. We do not expect that this indicates that age is not an important consideration in research on sexual and romantic behavior, emotions, cognitions, and perceptions. There are many additional questions about age-related differences and development that were not addressed in the current study. These include, for example, whether romantic relationships were differentially important to sexual subjectivity in early or middle adolescence compared to later adolescence or early adulthood, and whether sexual behavior has more emotional risk than self-perceptual benefit at some ages compared to others (for additional discussions of sexual behavior, romance and development, see Zimmer-Gembeck & Helfand, 2008; Welsh et al., 2000; Collins, Welsh, & Furman, 2009).

Overall, the sexual subjectivity elements that seemed to be progressing most in late adolescence and early adulthood were perceptions of sexual entitlements and self-efficacy. Moreover, increases over the time course of this study were significantly greater among girls who had lower levels of sexual subjectivity at the beginning of the study (i.e., those without a history of sexual intercourse). Hence, girls with a longer history of sexual behavior were higher in sexual subjectivity and changed less than other girls. The larger increases over time among girls with no history of intercourse or a recent history were most probably a reflection of their

more recent novel explorations, experiences, and major role transitions. Perceptions of entitlement and feelings of self-efficacy could progress most rapidly when facing new sexual experiences, whereas changes were more tempered when sexual behaviors were no longer completely novel. As discussed previously, it is possible that sexual entitlement expresses itself within the dyadic context of a romantic and/or sexual partnership.

Although the media and parents might provide some assistance with knowledge about the risks and benefits, and "rights" and "wrongs" of sexual behaviors and interactions (Lefkowitz & Stoppa, 2006; Ward, Day, & Epstein, 2006), sexual subjectivity is a developmental arena that probably does not receive much direct attention from the majority of parents or other socializing agents. This means it is heavily reliant on personal experience. Also, there are no easily accessible social norms for positive female sexuality and sexual subjectivity (Diamond, 2006). Because of this and the common perception that sexuality is a very personal issue, adolescents may develop their perceptions of entitlement and self-efficacy during lived experiences, especially novel and new experiences with a range of sexual behaviors. As was the case for entitlement to pleasure and desire, it is likely that sexual self-efficacy increases most in a dyadic sexual context providing opportunities of trying new and novel sexual experiences and of receiving positive feedback from the partner (Bay-Cheng et al., 2010).

Some previous research on sexual self-concept has included relationship commitment as a part of adolescents' perceptions of their sexuality (Buzwell & Rosenthal, 1996). However, it seems that there is additional clarity in separating the relational context from individual aspects of sexuality as was done in the current study. This allowed us to examine how relationship status covaried with the development of sexual subjectivity. Previous research has found that girls' sexuality is embedded in a context of interpersonal relationships (Bay-Cheng et al., 2010;

Breakwell & Millward, 1997; Florsheim, 2003; Smiler, Ward, Caruthers, & Merriwether, 2005; Welsh, Haugen, Widman, Darling, & Grello, 2005). Our findings support this conclusion by showing that females who were involved in steady romantic relationships at both phases of the current study were higher in sexual subjectivity (i.e., higher levels of entitlement, efficacy, and sexual self-reflection) than were those not in a relationship at either wave of the current study. We expect that one mechanism for this association is intimate communication with close social and sexual partners. For example, discussions related to sexual interactions with the partner may be a source of feedback, knowledge, and modeling regarding sexual competence, sexual self-efficacy, and entitlement to pleasure.

Despite the consistency of our findings across multiple measures of sexual subjectivity, there were four limitations of the current study to highlight. First, the results may not be generalizable beyond the characteristics of the current study participants. For example, most participants were white/Caucasian university students in a country where about 30% of young people attend at least some university. Moreover, 20% of the participants reported same-sex attraction, same-sex experience, or were unsure about their orientation.

Second, we did not assess pubertal development or related aspects of physical change. Girls who mature earlier, compared to their peers, form romantic relationships earlier and have intercourse or make other sexual behavior advances earlier (Ellis, 2004; Zimmer-Gembeck & Helfand, 2008). Additionally, pubertal change sparks a decline in body-esteem (Graber, Petersen, & Brooks-Gunn, 1996). A history of early or later pubertal timing (compared to peers) might be as or more important than age when studying sexuality development (for a more thorough consideration of these associations, see Graber & Sontag, 2006).



The third limitation to mention is the issue of the direction of effects. We have consistently described sexual behavior and romantic relationships as the antecedents of sexual subjectivity rather than the converse. However, more than two waves of data collection are needed to thoroughly consider whether this is the case, whether it is sexual subjectivity that has implications for later sexual behavior and romantic interactions, or whether these associations are bidirectional and transactional. We expect that the latter is occurring but this conclusion depends on future research.

Fourth, there was the limitation of a small sample size in some of the groups and unbalanced sample sizes for all group comparisons. These should be considered when interpreting the results, as this could have reduced power or introduced additional error in the results.

In addition to these limitations, we also have one caveat. We have conceptualized sexual subjectivity as a part of positive sexual health and development; this was supported by associations of sexual subjectivity with better well-being, more contraceptive use, and greater agency (Buzwell & Rosenthal, 1996; Martin, 1996; Horne & Zimmer-Gembeck, 2005, 2006). However, given that there are few positive societal messages about girls' sexual agency and entitlements, we had a number of challenges when attempting to identify optimal sexual subjectivity for girls. As others have also described (Holland, Ramazonoglu, Sharpe, & Thomson, 2004; Tolman, 2006), girls (as well as researchers) may be misdirected and not fully aware of all of the complexities of sexuality. Even those girls who are high in sexual subjectivity may need support to identify more optimal sexual developmental pathways.

We did not examine the processes (e.g., initiation of communication about sexual behavior) and content (e.g., features subject to conflict or negotiation within a couple, such as the

frequency of sexual interactions) of proximal sexual interactions in the current study. Hence, future research should focus on sexual and related intimate interactions, both the process and the content, with sexual and romantic partners as correlates of the development of sexual subjectivity. For example, a next step could be a longer prospective study with assessments about relational experiences closer in time, and both before and after new sexual experiences, in order to detect the most significant progress in sexual subjectivity. Such a design would be useful for understanding how particular experiences in romantic relationships or during sexual behavior are related to sexual subjectivity. This research design would also be more sensitive to the possibility that some participants in the current study could have had first sexual intercourse closely after the first assessment, whereas others did so shortly before the second assessment, with change in sexual subjectivity not yet evident.

There are multiple dimensions of behaviors, cognitions, attitudes, and emotions that define sexuality and provide important information about sexual health (Tolman et al., 2003). Sexual subjectivity is one way to conceptualize and measure some of these dimensions. Adolescent and young adult women seem to increase in sexual subjectivity as they have more experience with romance and a range of sexual behaviors. Drawing from this study as well as from the more extensive research literature on adolescent sexual risk behavior and the growing research on positive sexuality, sexuality education programs may now have a better opportunity to clearly define and foster sexual health. For example, this could be done by incorporating modules focused on sexual subjectivity. One module could be designed to raise awareness about sexual body-esteem and its links with romantic relationship quality. A second module might focus on feelings of entitlement and efficacy to make choices about sexual and romantic behavior. A third module could focus on the importance of personal reflection on sexuality,

sexual behavior, and close relationships as a source of learning and self-development, and so on. These applications will depend on also studying boys and their sexual health and development. Overall, further consideration of the complexity of sexuality and its development will guide research and interventions seeking to understand and promote positive self-development, autonomous action and the development of satisfying intimate relationships.

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Table 1

*Bivariate Correlations between T1 and T2 Sexual Subjectivity Elements and between Sexual Subjectivity and Age (N = 251)*

Variables	1	2	3	4	5	6	7	8	9	10	11	M (SD)
Time 1												
1. Sexual Body-Esteem	--											3.28 (.72)
2. Entitled - sexual pleasure self	.13*	--										3.34 (.96)
3. Entitled - sex pleasure partner	-.02	.31**	--									3.85 (.59)
4. Self-efficacy in sex pleasure	.29**	.40**	.37**	--								3.58 (.77)
5. Sexual Self-Reflection	.07	.50**	.36**	.25**	--							3.33 (.76)
Time 2												
6. Sexual Body-Esteem	.70**	.10	.05	.20**	.08	--						3.30 (.75)
7. Entitled - sexual pleasure self	.12	.75**	.23**	.29**	.50**	.12	--					3.57 (.97)
8. Entitled - sex pleasure partner	-.02	.14*	.43**	.15*	.23**	-.01	.18**	--				4.00 (.52)
9. Self-efficacy in sex pleasure	.38**	.29**	.22**	.57**	.30**	.41**	.32**	.22**	--			3.58 (.78)

10. Sexual Self-Reflection	.07	.35**	.29**	.11	.59**	.06	.43**	.29**	.13*	--		3.37 (.76)
11. T1 Sum of sexual behaviors	.19**	.46**	.39**	.47**	.45**	.14*	.46**	.09	.35**	.27**	--	7.4 (3.7)
12. T1 Age	.02	.15*	.16*	.08	.11	.05	.10	.10	.08	.05	.18**	19.3 (2.0)

*Note.* T1 = Time 1 assessment. T2 = Time 2, an average of 12 months after T1.

\* $p < .05$ . \*\* $p < .01$ .

Table 2

*Comparisons of Longitudinal Sexual Subjectivity over Time between T1 Sexual Behavior Groups (N = 251)*

	Inexperienced		Experienced		1st intercourse		1st intercourse		1st intercourse				Age (≤		Time ×					
	Virgins (IV)		virgins (EV)		after age 16 (A)		at age 16 (16)		before age 16		Sexual		18 vs.		Sexual					
	(n = 39)		(n = 26)		(n = 88)		(n = 57)		(B) (n = 41)		Behavior		19-20 vs.		Exp					
	M (SE)		M(SE)		M (SE)		M(SE)		M (SE)		Group		Pairwise		≥ 21)		Time		Group	
Sexual subjectivity	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	F(4,245)	Comp	F(2,245)	F(1,245)	F(4,245)					
Sexual body-esteem	3.13 (.13)	3.19 (.14)	3.13 (.17)	3.01 (.18)	3.21 (.08)	3.27 (.08)	3.40 (.10)	3.42 (.10)	3.47 (.12)	3.45 (.12)	1.87		.06	.01	.46					
Entitled -sexual pleasure oneself	2.85 (.17)	2.84 (.17)	3.12 (.22)	3.40 (.22)	3.30 (.10)	3.53 (.10)	3.52 (.13)	3.90 (.12)	3.87 (.15)	4.04 (.15)	8.44**	IV < A,16,B; A < B	.33	15.98**	1.65					
Entitled -sexual pleasure partner	3.50 (.10)	3.96 (.10)	3.62 (.13)	3.98 (.13)	3.96 (.06)	4.04 (.06)	3.98 (.08)	4.07 (.07)	4.03 (.09)	3.89 (.09)	2.89 *	IV < A, 16	1.26	15.41**	5.59**					
Self-efficacy in sexual pleasure	3.12 (.14)	3.29 (.14)	3.26 (.18)	3.53 (.18)	3.66 (.08)	3.54 (.08)	3.68 (.10)	3.67 (.11)	3.93 (.12)	3.88 (.12)	5.18**	IV < A,16,B	.62	.96	1.68					



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Sexual self-	2.80	3.12	3.07	3.21	3.34	3.37	3.58	3.58	3.64	3.45	5.30**	IV <			
reflection	(.13)	(.14)	(.17)	(.18)	(.08)	(.08)	(.10)	(.11)	(.12)	(.12)		A, 16	.77	1.21	2.41*

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*Note.* T1 = Time 1 assessment. T2 = Time 2. Comp = Comparisons (Bonferonni). Exp = Experience.

\* $p < .05$ . \*\* $p < .01$ .

Table 3

*Comparisons of Sexual Subjectivity over Time between Sexual Transition Groups (N = 251)*

	Nonvirgins										Time ×	Pairwise
	Virgins (V)		Initiators (I)		(NV)		Sexual	Pairwise	Age (≤ 18		Sexual	Comp for
	(n = 46)		(n = 19)		(n = 186)		Transition	Comp for	vs. 19-20		Transition	Time ×
	M (SE)		M (SE)		M (SE)		Group	Sexual	vs. ≥ 21)	Time	Group	Sexual
								Transition	Transition			Transition
Sexual subjectivity	T1	T2	T1	T2	T1	T2	F (2, 247)	Group	Group	F (1,247)	F (2, 247)	Group
Sexual body-esteem	3.18	3.16	3.13	3.14	3.32	3.35						
	(.12)	(.13)	(.27)	(.28)	(.05)	(.06)	1.12			.22	.01	.12
Entitled -sexual	2.84	2.92	3.16	3.82	3.49	3.75	11.21**	V < NV		.10	12.77**	2.49 <sup>a</sup>
pleasure oneself	(.16)	(.15)	(.35)	(.34)	(.07)	(.07)						
Entitled -sexual	3.50	3.96	3.47	4.24	3.98	4.02	5.54**	V < NV		.37	29.63**	13.42*** <sup>a</sup>
pleasure partner	(.09)	(.09)	(.20)	(.19)	(.04)	(.04)						NV<V,I; V<I
Self-efficacy in sexual	3.16	3.37	3.18	3.88	3.73	3.66	6.50**	V < NV		.55	8.31**	5.93**
pleasure	(.12)	(.13)	(.28)	(.29)	(.05)	(.06)						NV, V,I; V<I
Sexual self-reflection	2.83	3.03	3.27	3.92	3.47	3.44	10.03**	V < NV		.27	11.17**	6.10*** <sup>a</sup>
	(.12)	(.12)	(.27)	(.28)	(.05)	(.06)						V,NV<I

*Note.* T1 = Time 1 assessment. T2 = Time 2. Comp = Comparisons (Bonferonni).

\*  $p < .05$ . \*\* $p < .01$ .

Table 4

*Comparisons of Sexual Subjectivity over Time between Relationship Status Groups (N = 251)*

									Age ( $\leq$					
	Neither (N)		T1 only (T1)		T2 only (T2)		Both (B)				18 vs.			
	<i>(n = 80)</i>		<i>(n = 26)</i>		<i>(n = 39)</i>		<i>(n = 106)</i>		Relationship		19-20		Time $\times$	
	<i>M (SE)</i>		<i>M(SE)</i>		<i>M (SE)</i>		<i>M(SE)</i>		Status Group	Pairwise	vs. $\geq 21)$	Time	Group	
Sexual subjectivity	T1	T2	T1	T2	T1	T2	T1	T2	<i>F</i> (3,246)	Comp	<i>F</i> (2,246)	<i>F</i> (1,246)	<i>F</i> (3,246)	
Sexual body-esteem	3.13	3.24	3.27	3.45	3.21	3.27	3.43	3.36	1.54			.13	1.43	1.90
	(.08)	(.09)	(.26)	(.27)	(.13)	(.14)	(.07)	(.07)						
Entitled -sexual	3.06	3.32	3.82	3.84	3.61	3.81	3.51	3.76		N <				
pleasure oneself	(.11)	(.11)	(.34)	(.34)	(.18)	(.18)	(.09)	(.09)	4.77**	T2,B	2.13	5.83*	.31	
Entitled -sexual	3.82	4.00	3.84	4.00	3.94	4.07	3.91	3.99						
pleasure partner	(.07)	(.06)	(.21)	(.19)	(.11)	(.10)	(.06)	(.05)	.32		1.20	4.42*	.42	
Self-efficacy in	3.34	3.31	4.10	3.80	3.47	3.63	3.78	3.77						
sexual pleasure	(.09)	(.09)	(.27)	(.27)	(.14)	(.14)	(.07)	(.08)	7.40**	N < B	.95	.31	.97	
Sexual self-reflection	3.12	3.27	4.13	3.76	3.56	3.65	3.39	3.34		N <				
	(.09)	(.09)	(.26)	(.27)	(.14)	(.14)	(.07)	(.08)	4.85**	T1,T2	2.86	.39	2.13	

*Note.* T1 = Time 1 assessment. T2 = Time 2. Comp = Comparisons (Bonferonni).

\* $p < .05$ . \*\* $p < .01$ .

### Figure Headings

*Figure 1.* Entitlement to sexual pleasure from the self at Time 1 and Time 2 by sexual intercourse history groups.

*Note.* IV = Inexperienced virgins, EV = experienced virgins, After 16 = sexual intercourse debut at age 17 or later, Age 16 = sexual intercourse debut at age 16, Before 16 = sexual intercourse debut before age 16.

*Figure 2.* Entitlement to sexual pleasure from a partner at Time 1 and Time 2 by sexual intercourse history groups.

*Note.* IV = Inexperienced virgins, EV = experienced virgins, After 16 = sexual intercourse debut at age 17 or later, Age 16 = sexual intercourse debut at age 16, Before 16 = sexual intercourse debut before age 16.

Figure 1

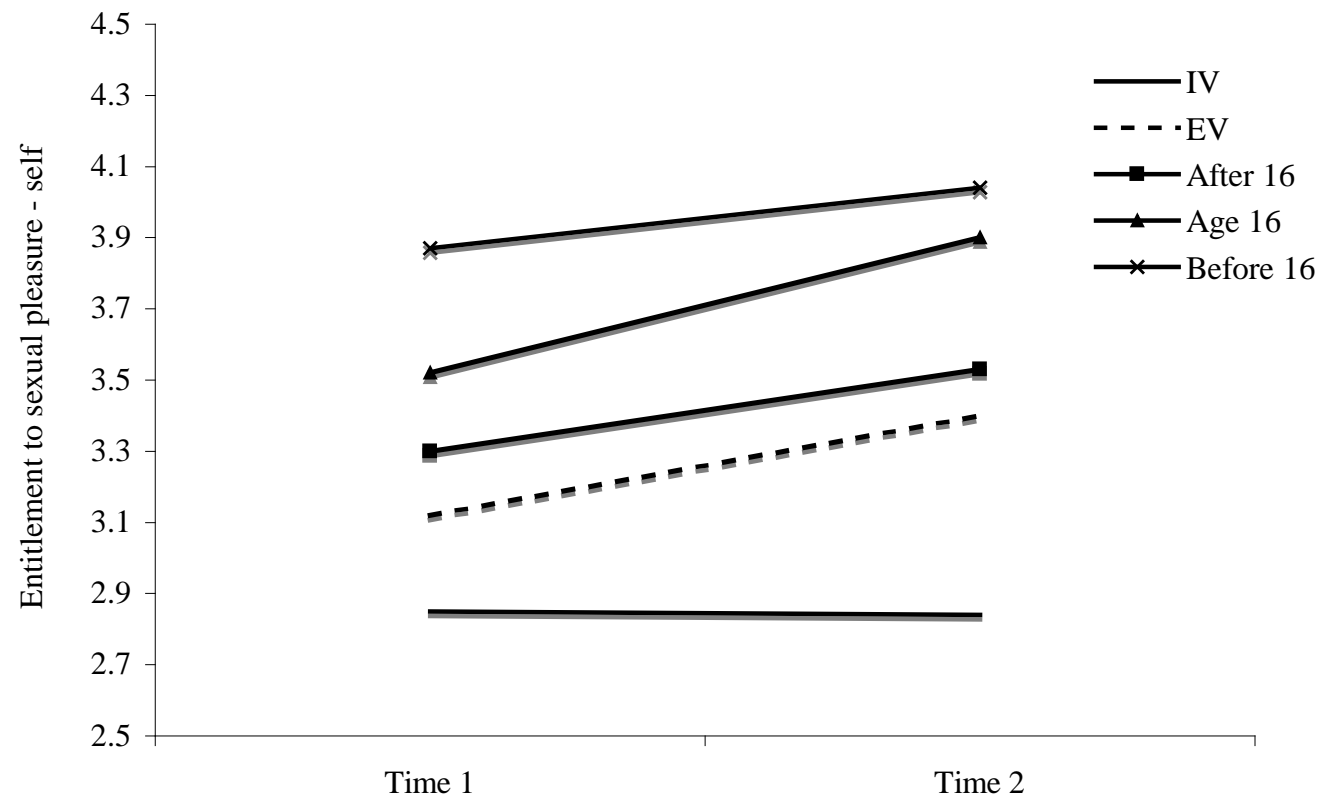


Figure 2

