

# THE FEMALE SEXUAL SUBJECTIVITY INVENTORY: DEVELOPMENT AND VALIDATION OF A MULTIDIMENSIONAL INVENTORY FOR LATE ADOLESCENTS AND EMERGING ADULTS

Sharon Horne and Melanie J. Zimmer-Gembeck  
*Griffith University–Gold Coast Campus*

Three studies were conducted to develop and validate a theoretically derived multidimensional inventory of females' sexual self-conceptions (*sexual subjectivity*). Study 1 revealed five factors on the Female Sexual Subjectivity Inventory (FSSI): sexual body-esteem, three factors of conceptions and expectations of sexual desire and pleasure (self, partner, and self-efficacy), and sexual self-reflection. A shorter revised version of the FSSI was tested in Study 2. In Study 3, a confirmatory factor analysis indicated a good fit to the data. The FSSI had a sound factorial structure and high reliability. Significant associations between the five scales in the FSSI and sexual self-awareness, safe sex self-efficacy, and sexual anxiety provided evidence of validity. Some FSSI scales were also associated with self-silencing in close relationships, resistance to sexual double standards, and self-esteem. Sexual subjectivity is a complex intraindividual phenomenon that includes cognitive and emotional components, some of which can be assessed with the FSSI scales.

Sexuality is an integral part of health and well-being. Sexuality is also a multifaceted and complex phenomenon that includes sexual self-perceptions. These sexual self-perceptions follow from and are embedded in socially constructed relationships and lived experiences (Tolman, Striepe, & Harmon, 2003). Sexuality most likely develops throughout the lifespan. During adolescence, however, many individual and social factors coalesce to make this time in the life cycle the moment when the foundations for sexuality are incorporated into an individual's sense of self

(Florsheim, 2003; Moore & Rosenthal, 1993). At this time the individual and social factors that impact the emerging sexual self can include physiological changes, increases in sexual desire, the increasing need for intimate relationships, and sexual behaviors and related activities (Brooks-Gunn & Paikoff, 1993; Zimmer-Gembeck, Siebenbruner, & Collins, 2004). Sexual development during adolescence can have influences on later sexual self-perceptions, sexual behavior, and positive adjustment within and outside the sexual domain (Cyranowski & Andersen, 1998; Moore & Rosenthal, 1993).

Sharon Horne and Melanie J. Zimmer-Gembeck, School of Psychology, Griffith University, Gold Coast Campus.

We thank Dr. Graham Bradley for his helpful comments on earlier versions of this manuscript, Geoffrey Horne for his help with editing, Julianne Reardon for her invaluable assistance in the collection of data for Studies 2 and 3, and those who kindly volunteered to participate in these studies. Portions of this article were presented at the 13th Biennial Meeting of the Australasian Human Development Association, Auckland, New Zealand, and the 2003 Biennial Meeting of the Society for Research on Adolescence, Baltimore, Maryland.

Address correspondence and reprint requests to: Dr. Sharon Horne or Dr. Melanie J. Zimmer-Gembeck, School of Psychology, Griffith University-Gold Coast Campus, PMB 50 GCMC, QLD 9726, Australia. E-mail: s.horne@bigpond.net.au or m.zimmer-gembeck@griffith.edu.au

The purpose of the current study was to develop and evaluate an instrument to measure intraindividual aspects of sexuality, including self-perceptions and related cognitions, among female adolescents and emerging adults. After reviewing the literature, the concept "sexual subjectivity" seemed to capture this intraindividual aspect of female sexual health (Martin, 1996; Tolman, 2002). Martin (1996) defined sexual subjectivity as "the pleasure we get from our bodies and the experiences of living in a body" (p. 10). Tolman (2002) stated that a girl's sexual subjectivity means experiencing entitlement to sexual pleasure and sexual safety and being aware of social forces against her possessing these entitlements. Based on these definitions and others, three intraindividual themes emerged: (a) the body, (b) desire and pleasure, and (c) sexual self-reflection (Brooks-Gunn & Paikoff, 1993; Bukowski, Sippola, &

Brender, 1993; Haffner, 1998). These elements were operationalized, and we refer to the associated measure as the Female Sexual Subjectivity Inventory (FSSI). We identified a number of measures that have been used to assess some intraindividual aspects of sexuality (e.g., Cyranowski & Andersen, 1998; Hendrick & Hendrick, 1987; Holmes, Clemmens, & Froman, 2000; Rosenthal, Moore, & Flynn, 1991; Snell, Fisher, & Miller, 1991; Snell & Papini, 1989). However, to our knowledge, no available measure assessed the core FSSI elements.

### *Sexual Subjectivity in Girls and Conceptual Basis for the FSSI*

Inherent in the term *sexual subjectivity* is the concept of being the subject rather than the object of sexual desire (Burch, 1998). Feminist theorists have argued that a girl's sexual subjectivity is not easily achieved. These theorists depict a socio-cultural environment in which girls develop their sexuality as they receive mixed messages and experience cultural double standards and male sexual values, such as the prominence of intercourse and other beliefs and practices that flow from patriarchal ideologies that serve to police female sexuality (Baumeister & Twenge, 2002; Martin, 1996; Tolman et al., 2003; Welsh, Rostosky, & Kawaguchi, 2000). Martin (1996) argued that female sexuality could be associated with shame, danger, and guilt. Similarly, Tolman (1994) argued that girls may grow to know themselves from the male perspective, feeling less agentic and sexually subjective (also see Fine, 1988; Lees, 1993; Thompson, 1995; Tolman et al., 2003).

Although this developmental landscape may seem bleak, many of these same feminist researchers have reported that some girls negotiate and respond to their sexuality in health-enhancing ways (e.g., Holland, Ramazanoglu, Sharpe, & Thomson, 1992; Martin, 1996; Thompson, 1990, 1995; Tolman, 1994). More particularly, based on extensive one-on-one interviews with adolescent girls, researchers described girls who experience sexual curiosity, desire, and pleasure (Thompson, 1995) and who are able to "subvert, reconstruct, and modify these socio-cultural influences" (Martin, 1996, p. 107) and incorporate more positive aspects of sexual subjectivity into their sense of selves (Tolman, 2002).

Despite this, most research on adolescent sexuality has taken a problem-focused approach, which begins with the assumption that all female adolescent sexuality is potentially problematic, needing prevention, or at least control (Welsh et al., 2000). Consequently, it is rare that the components of positive or healthy female sexuality have been studied during late adolescence and emerging adulthood. As a step toward the goal of testing hypotheses related to female sexual health, and particularly, whether girls, despite socio-cultural obstacles, can experience and manage their sexuality in positive, pleasurable, self-protective, efficacious, and planned ways, we created the FSSI. The three

elements of the FSSI (described below) were hypothesized to be important components of female sexual subjectivity that ultimately contribute to well-being.

*Element 1: Sexual body-esteem.* Sexual subjectivity requires an understanding and experience of pleasure with the body (Martin, 1996). Pleasure is less likely if an individual objectifies her sexuality and allows others to judge her *right* to feel attractive and sexually desirable, based on whether or not she possesses the socially valued feminine attributes (Daniluk, 1993; Tolman et al., 2003). Today, girls are bombarded with media projections of what society deems to be beautiful and desirable, leading many girls to be preoccupied and concerned about not meeting these impossible perfect images, growing to experience themselves as insufficient (Daniluk, 1993; Lees, 1993). Accordingly, the first element, sexual body-esteem, was characterized by items thought to reflect positive self-perceptions of sexual attractiveness and desirability. We diverge purposefully from several existing instruments that emphasize self-perceptions of body shape and size (Mendelson, Mendelson, & White, 2001) to include items that tap self-perceptions of body-esteem in the sexual context.

Empirical support for this element was found in a study of patterns of sexual self-perceptions among a sample of 470 Australian adolescents (Buzwell & Rosenthal, 1996). In this previous study, results indicated that perceived attractiveness forms part of an individual's conceptualization of their sexuality. Using cluster analysis, groups of young people were formed. Individuals classified as sexually competent (we argued that members of this group appeared to combine those qualities that foster sexual well-being) reported greater confidence in their sexual appeal and appearance, compared to those adolescents classified as either sexually naïve or sexually unassured.

*Element 2: Sexual desire and pleasure.* As well as sexual body-esteem, sexual subjectivity includes experiencing pleasure from the body. Young people usually experience increasing feelings of sexual arousal and desire as they experience pubertal changes and the external responses to the physical manifestations of these changes (Brooks-Gunn & Paikoff, 1993). Whereas sexual arousal can be a physiological state of readiness for activity based on the level of sensory excitability, sexual desire also includes cognitive and emotional components, such as recognizing sexual urges/energy and interest in sexual activity and relationships (Nicolson, 1994). The terms, sexual arousal and sexual desire, are most often used in the adolescent sexuality literature. A corresponding focus on an individual's sense of entitlement to these feelings and a capacity to experience sexual pleasure is limited in this literature. Sexual pleasure is defined as a sense of well-being derived from the experience of being sexual and, as such, is an essential component of sexual subjectivity (Nicolson, 1994). Rather than measuring sexual desire per se, the second element of the FSSI was

operationalized as: (a) a sense of entitlement to sexual desire and pleasure and (b) self-efficacy in achieving sexual pleasure.

A review of the literature revealed little discussion on the topic of adolescent girls' perceptions of entitlement and efficacy in the sexual domain, possibly suggesting these topics are somewhat taboo. Given beliefs such as: "boys want sex, girls want relationships" (Welsh et al., 2000), it is not surprising that adolescent girls' desires for sexual exploration and pleasure are not often acknowledged or empirically researched (for exceptions see Fine, 1988; Martin, 1996; Thompson, 1995; Tolman, 1994). Most societies emphasize heterosexual relationships and promote the belief that male sexuality is biologically determined and uncontrollable and that it is the girls' role to react to and manage the sexual desire of boys (Tolman, 1994; Welsh et al., 2000). However, when researchers have focused on this dimension of sexuality, glimpses of female sexual empowerment have emerged. In interviews, Tolman (1999, 2002) reported how some girls relate to their sexual desires with trepidation, whereas others resist their own feelings as a way of staying psychologically and socially safe. However, other girls consciously chose to act on their sexual desire, voicing criticism of the double standard and unequal gender relations. Most importantly, Tolman (1999) observed that it was the latter group of girls who also reported identifying and escaping experiences of sexual violence more than their counterparts. Girls' ability to accept and acknowledge their own sexual desire seemed important for interpreting sexual experiences and for making sexual decisions.

*Element 3: Sexual self-reflection.* Sexual subjectivity not only emerges from experiences of our bodies and its pleasures, but also from a context of emotional and cognitive interaction and reflection (Martin, 1996). Reflection on experiences is a means to generic knowledge about the self and the world (Bandura, 1989). Growth in cognitive reflection is synonymous with adolescence. Adolescence brings with it more sophisticated cognitive capabilities, particularly introspection and reflection (Keating, 1990). This self-reflection is likely to occur in the sexual domain. In this domain, Tolman (1994) posited that a girl needs a critical perspective to come to know her sexual self. Others argue that the ability to reflect critically on experiences and make decisions about future sexual strategies and behaviors may be an important component in healthy sexual development (Cyranowski & Andersen, 1998). We postulated that sexual subjectivity not only comes from received knowledge and direct experience, but also from meta-cognitive reflection.

A review of the literature revealed few empirical studies on the importance of sexual self-reflection. Some information was available in a study by Holland et al. (1992). Based on data from the Women, Risk, and AIDS Project and a selection of young girls' accounts of their sexual experiences, the authors argued that a lack of positive models of

female sexuality (due to the dominant focus on male sexuality) necessitates that girls "have to do a good deal of critical reflecting on their experiences in order to gain control of their responses to men" (p. 653). More particularly, the authors asserted that sexual empowerment requires both critical reflection and the transforming of sexual experiences. For example, an adolescent girl who evaluates her early initiation to nonvirgin status as "a mistake that just happened" may suffer low self-esteem as a result, but may also accept responsibility for "the mistake" and avoid similar experiences until such time as she feels more ready (Holland et al., 1992). Self-reflection enables people to analyze experiences, consider the what and why of their behaviors, and to plan future behaviors.

### *Sexual Subjectivity—Not Only a Heterosexual Phenomenon*

Most studies of adolescent sexuality and sexual behavior have focused on heterosexual relationships, but not all girls have relationships and sexual experiences with boys or exclusively with boys. Comparative studies of the sexual experiences of lesbian, bisexual, and heterosexual adolescents are scant. In the adult literature, however, comparisons of lesbian and heterosexual women have shown that lesbians report relatively lower concern for physical appearance (Strong, Williamson, Netemeyer, & Geer, 2000), trust their partners more (Zak & McDonald, 1997), and report more sexual satisfaction and orgasms through masturbation (Coleman, Hoon, & Hoon, 1983). Other researchers have argued that lesbian women have a similar level of body dissatisfaction (Beren, Hayden, Wilfley, & Grilo, 1996) and, in a qualitative study, similar difficulties in achieving sexual subjectivity (Burch, 1998). Hence, comparisons of FSSI elements between girls with and without same-sex sexual experiences were conducted in the current study.

### *Overview of Studies and Hypotheses*

The FSSI was developed through a series of three studies. The factor structure, validity, and reliability of the FSSI were examined. Evidence of convergent validity of the FSSI was provided by examining correlations between the FSSI and measures of sexual attitudes, beliefs, and behaviors. More particularly, because female sexual subjectivity was expected to develop as the individual learns to act *in* her body and experiences herself as entitled to pleasure from her body, we hypothesized that the FSSI elements should be positively associated with a measure of sexual consciousness (i.e., the tendency to attend to the individual aspects of sexuality), entitlement to experiment with sexuality (including sexual preferences) free from guilt and anxiety, and for girls with heterosexual experience, self-efficacy in safe sex practices.

We also hypothesized that sexual subjectivity would be positively associated with measures of positive adolescent development, including self-esteem and identity

achievement (see also Horne & Zimmer-Gembeck, 2005). Selverstone (1989) argued that the key question regarding the nature of adolescent sexual health was the extent to which it fosters or impedes overall healthy development (also see Laumann, 1994). If sexual subjectivity marks positive sexuality, positive associations between sexual subjectivity and markers of positive adolescent development should exist.

Lastly, female sexual subjectivity may require active resistance against patriarchal suppression. To examine this proposition, we measured two factors that are often supported by a patriarchal society: self-silencing in intimate relationships (i.e., a gendered concept in which girls silence their own desires, thoughts, feelings, and opinions in order to maintain intimate relationships) and adherence to sexual double standards (i.e., different standards of sexual permissiveness for females and males). Both factors have been shown to be associated with girls' well-being and quality of intimate interactions (e.g., Harter, Waters, Whitesell, & Kastelic, 1998; Tolman & Porche, 2000). For example, girls who score higher in self-silencing also report more helplessness and depressive affect, as well as lowered self-esteem (Jack, 1991). In the current study, we expected sexual subjectivity to be positively associated with voice in relationships and resistance to sexual double standards.

### STUDY 1: INSTRUMENT DEVELOPMENT AND INITIAL PSYCHOMETRIC TESTING

The purpose of Study 1 was to develop a valid and reliable set of scales that would measure the multiple aspects of female sexual subjectivity in late adolescents and emerging adults. These aspects were identified via a review of previous theories and, primarily, qualitative studies. The resulting inventory of measures, the FSSI, was designed to assess sexual body-esteem, entitlement to sexual desire and pleasure, and sexual self-reflection. In Study 1, a review of existing measures was conducted, items were constructed to tap these three identified aspects of sexual subjectivity, and the factor structure and reliability of each scale was examined.

#### Method

##### *Participants and Procedure*

In a pilot study prior to Study 1, 20 female undergraduate students (age 18 to 22 years) at a large university in Queensland, Australia completed questionnaires containing 78 items. Following this pilot study, 192 girls between the ages of 16 and 19 years ( $M = 17.4$ ,  $SD = 0.75$ ) completed questionnaires. These questionnaires included a reduced set of 56 FSSI items and demographic questions. The majority of the 192 participants (70%,  $n = 135$ ) were randomly recruited in an area heavily populated with adolescents celebrating "Schoolies™ Week," marking the end

of high school.<sup>1</sup> These participants were from a variety of regions of Australia. A response rate of about 90% was achieved. Surveys were completed either on beaches or in local cafés under the supervision of a researcher. Participants under the age of 18 years who consented to participate were required to obtain parental consent prior to participation (via telephone). The remaining 30% ( $n = 57$ , 81% response rate) of participants were in Year 12 classes at private secondary schools or first-year students at a university in an urban area of Southeast Queensland, Australia. Again, students under the age of 18 years were required to obtain parental consent prior to participation. These 57 participants completed surveys at home and returned them in the provided envelopes.

Seventeen girls were excluded from data analyses due to missing data leaving a final sample size of 175. As can be seen in Table 1, 95% of the sample was White/Caucasian, 72% lived with two biological parents, 82% had recently completed high school, and 90% described themselves as heterosexual.

#### *Materials*

*Generation and reduction of the item pool.* After a review of the literature, some instruments commensurate with aspects of our theoretical conceptualization of female sexual subjectivity were identified (e.g., Andersen & LeGrand, 1991; Buzwell, 1995; Hughes & Snell, 1990; Rosenthal et al., 1991; Snell et al., 1991). However, no measure of entitlement to sexual desire and pleasure and no measure of sexual self-reflection were located. Given this gap in the literature, and the potential that these aspects of the sexual self-concept would be sensitive and complex, a large pool of 78 items was generated to measure sexual body-esteem, entitlement to sexual desire and pleasure, and sexual self-reflection. These items were either selected from previously validated instruments (e.g., Buzwell, 1995; Derogatis & Melisarotos, 1979; Rosenthal et al., 1991; Snell et al., 1991) or developed in accord with the conceptual definitions of sexual body-esteem, entitlement to sexual desire and pleasure, and sexual self-reflection. Each of these measures was expected to provide important information about the multidimensional theoretical construct of sexual subjectivity.

Upon examination of comments and analyses of items in the pilot study, some items were deleted to reduce redundancy or because of low correlations with other items. A few items were reworded to reduce ambiguity. This process reduced the FSSI to 56 items for Study 1. All of the items had response options ranging from 1 (*not at all true for me*) to 5 (*very true for me*).

*Element 1: Sexual body-esteem.* This element measured self-perceptions of sexual attractiveness and desirability (e.g., "I am confident that others will find me sexually desirable"). Twenty-six items were included in this scale.

**Table 1**  
Description of Participants in Studies 1, 2, and 3

<i>Demographic Measures</i>		<i>Study 1</i> N = 175	<i>Study 2</i> N = 449	<i>Study 3</i> N = 214
Age (years)	Mean	17.4	17.9	19.9
	Range	16–19	16–20	17–22
Race/ethnicity	Caucasian/White	95%	90%	80%
	Aboriginal Australian	2%	1%	0%
	Asian	1%	5%	14%
	Other	2%	4%	6%
Education status	In or just finished year 12	82%	18%	–
	Technical/university (most first year)	12%	81%	–
	Other <sup>a</sup>	6%	1%	–
Sexual orientation	Heterosexual	90%	85%	85%
	Lesbian	0.6%	0.4%	0.5%
	Bisexual	1%	3%	4%
	Heterosexual with lesbian experience	8%	11%	8%
	Undecided as to sexual orientation	1%	1%	2%
Current residence	Two biological parents	72%	–	–
	One biological/one stepparent	8%	–	–
	Single parent	13%	–	–
	Other <sup>b</sup>	7%	–	–
Family structure	Two biological parents	–	72%	78%
	One biological/one stepparent	–	11%	10%
	Single parent	–	14%	11%
	Other	–	3%	1%
Mother's education	<High school certificate	25%	36%	–
	High school certificate	22%	17%	–
	University degree	53%	47%	–
Father's education	<High school certificate	23%	27%	–
	High school certificate	19%	10%	–
	University degree	58%	63%	–

<sup>a</sup>Currently in full-time employment. <sup>b</sup>For example, living away from family home, living in flat/dorm.

*Element 2: Sexual desire and pleasure.* Element 2 measured two aspects of desire and pleasure: conceptions of entitlement to sexual desires and pleasure and perceived ability in achieving sexual satisfaction. Sample items included, “It’s okay for me to meet my own sexual needs through self-masturbation” and “I would not hesitate to ask for what I want sexually from a romantic partner.” Fifteen items were included in this scale.

*Element 3: Sexual self-reflection.* This element assessed the extent to which adolescents reflected on the nature of their sexuality, behavior, and experiences (e.g., “I spend time thinking and reflecting about my sexual behavior”). Fifteen items were included in this scale.

## Results

### *FSSI Item Analysis, Factor Structure and Reliability*

A principal component factor analysis with oblique rotation was completed for items that were designed to assess sexual body-esteem. Two additional factor analyses were

completed for entitlement to sexual desire and pleasure and sexual self-reflection items. Although we conceptualized each of these elements as consistent with conceptions of sexual subjectivity among females, we completed a separate exploratory factor analysis for each element. This approach was taken primarily because of the lack of measures and statistical data on sexual subjectivity. This made it important to focus on measurement development for each aspect prior to examining overlap between factors. Also, from a developmental perspective, it was unclear whether each element would develop at a similar rate as the others (e.g., it seemed that entitlement to sexual desire and pleasure might develop later than sexual self-reflection and sexual body-esteem) and whether there may be different antecedents or correlates of each element at different ages. Hence, it was important to maintain the separate subscales in this initial study and to focus on developing good tools for assessing each element prior to examining the whole sexual subjectivity inventory in Study 2.

The number of factors to rotate in each factor analysis was based on an eigenvalue of 1.0 or greater, the scree test,

and interpretability of the factor solution. An item was eliminated if it did not load highly (loading of  $< .50$ ) on any factor, if the item loaded highly ( $> .40$ ) on more than one factor, if it had low correlations with all other items, if it had very high correlations with at least one other item, or if there was substantial improvement in internal consistency following deletion. In addition, to ensure a parsimonious instrument, stringent data screening and item analysis were performed prior to factor analysis to remove items that had limited variance and/or problematic distributions (i.e., very positively or negatively skewed), very low item-total correlations, or items that were almost redundant with other scale items. This screening resulted in the deletion of 14 items from the sexual body-esteem scale, 2 items from the sexual desire and pleasure scale, and 1 item from the sexual self-reflection scale. After meeting these requirements and the requirements of factor analysis, 5 items were maintained to assess sexual body-esteem, 10 items assessed sexual desire and pleasure, and 4 items assessed sexual self-reflection. The complete list of items is given in Study 2.<sup>2</sup> Items retained for each element were submitted again to factor analysis to determine final loadings and total variance accounted for by each factor.

*Element 1: Sexual body-esteem.* Factor analysis of items retained to measure sexual body-esteem yielded a single factor solution, accounting for 57% of the total variance in items. The factor had five items with factor loadings ranging from .64 to .85. Reliability analysis of this five-item scale yielded a Cronbach's  $\alpha$  of .80.

*Element 2: Sexual desire and pleasure.* A three-factor solution was deemed best for Element 2. The three factors accounted for 69% of the total item variance and were found to have a readily interpretable pattern of factor loadings. The first factor consisted of three items with high loadings (.82 to .91). This factor was labelled "sense of entitlement to sexual pleasure from self." Four items loaded highly (.78 to .88) on a second factor labelled "sense of entitlement to sexual pleasure from a partner." Although we had initially conceptualized an individual's sense of entitlement to sexual pleasure as a single dimension, it was interesting, and in hindsight understandable, that feelings of entitlement to sexual pleasure from the self (e.g., through self-masturbation) could be partly distinct from those with a partner. The final factor contained three items with high loadings (.80 to .82). This factor was labelled "self-efficacy in achieving sexual pleasure." All subscales had high reliability, Cronbach's  $\alpha$  of .82, .75, and .75, respectively.

*Element 3: Sexual self-reflection.* A two-factor solution that accounted for 70% of the variance in the items was deemed best for Element 3. Each factor contained two items, splitting the construct into the positively and negatively worded items. As two two-item scales are frequently unstable and not desirable, this solution was rejected and

another factor analysis was conducted requesting a single factor with four items. The four items accounted for 44% of the total variance in items, with loadings ranging from .53 to .75. The four-item scale had modest reliability,  $\alpha = .57$ .

## STUDY 2: INVENTORY MODIFICATIONS AND VALIDATION OF THE FSSI

Study 2 was undertaken to develop and test additional scale items aimed at improving factor solutions and reliability of scales assessing Elements 2 and 3 (i.e., sexual desire and pleasure and sexual self-reflection scales) and, in addition, to examine the factor structure of all items on the FSSI within a single analysis. A third aim was to examine the construct and convergent validity of the subscales of the FSSI in an independent, larger sample of adolescent girls. Based on previous literature, the subscales of the FSSI were expected to converge with measures of sexual consciousness, safe sex self-efficacy, self-esteem, identity achievement, and resistance to patriarchal ideologies. We were also interested in establishing whether the FSSI elements were equally applicable across sexual orientations and experiences. Specifically, we examined whether a group of girls who reported that they were heterosexual differed from a group of girls (approximately 15% of participants) who identified as lesbian, bisexual, had previous same-sex sexual experience, or were unsure of their sexual orientation. We grouped all nonexclusive heterosexual girls together for two primary reasons. First, they had a wider range of sexual experiences relative to exclusively heterosexual girls. Second, sexual orientation is not always established in late adolescence (Diamond, 2003), and those girls who did not report exclusive heterosexuality were likely experiencing some level of uncertainty about their sexual orientation.

### Method

#### *Participants and Procedure*

Participants were 449 girls between the ages of 16 and 20 years ( $M = 17.9$ ,  $SD = 1.2$ ) from Southeast Queensland, Australia. About 80% ( $n = 353$ ) of participants were university students enrolled in a first-year psychology subject at a large university. Course credit was offered for participation. The remaining participants were Year 12 students from three private secondary schools ( $n = 77$ ) and students enrolled in a humanities class at a technical college ( $n = 19$ ). Response rates for each participant group were 78%, 67%, and 86%, respectively. As in Study 1, most participants were White/Caucasian, lived with both biological parents, and were heterosexual (see Table 1). However, as can be seen in Table 1, there was some diversity. Of note was the large percentage of participants with parents who did not complete high school (27% of fathers and 36% of mothers) and the 15% who reported same-sex attraction/experience or were unsure about their sexual orientation (i.e., 2 lesbians, 14 bisexuals, 47 who reported

they were heterosexuals with a lesbian experience, and 4 who were unsure of their sexual orientation).

All participants under the age of 18 years had written parental consent prior to participation in this study. Respondents completed a confidential questionnaire booklet containing a demographic and relationship history questionnaire, the FSSI, and several scales measuring aspects of sexual and global functioning. Students completed the questionnaire booklet in small groups under the supervision of a researcher.

### Measures

**FSSI.** A 23-item revised version of the FSSI was administered. Following Study 1, two scales contained three items with adequate reliability (i.e., Element 2's entitlement to sexual pleasure from self and self-efficacy in achieving sexual pleasure scales), and one scale, with a forced four-item solution, had a low reliability coefficient of .57 (i.e., Element 3). In an attempt to improve factor solutions and increase reliability of scales, four new items were developed by the researchers in accord with the conceptual definitions of the scales.

**Convergent validity: Sexual domain.** The Sexual Consciousness subscale of the Sexual Awareness Questionnaire (Snell et al., 1991,  $\alpha = .86$  for girls) was designed to measure a dispositional tendency to be aware of, and pay attention to, internal aspects of one's sexuality. Snell et al. (1991) reported that girls who were relatively high in sexual consciousness were also high in sexual esteem, sexual satisfaction, and internal locus of control, and were relatively low in sexual guilt and anxiety. The reliability of this measure was high in the current study,  $\alpha = .84$ . Items were summed so that higher scores indicated more sexual consciousness.

Safe sex self-efficacy was assessed using four items adapted from the Sexual Self-Efficacy Scale (Rosenthal et al., 1991). An example item is, "I feel confident that I would be able to buy condoms." All items had a response option ranging from 1 (*not at all true for me*) to 5 (*very true for me*). Reliability of this scale was high in the current study, Cronbach's  $\alpha = .76$ . Items were summed so that higher scores indicated more self-efficiency.

**Convergent validity: General well-being.** Measures of self-esteem and identity achievement were also completed. Self-esteem was assessed with the Rosenberg Self-Esteem scale (Rosenberg, 1979). This scale is widely used and consists of 10 items. Responses ranged from 1 (*strongly agree*) to 4 (*strongly disagree*). High reliability of this scale has been reported when used with young people, Cronbach's  $\alpha = .82$  (Crockett, Bingham, Chopak, & Vicary, 1996). Reliability of this measure was also high in the current study,  $\alpha = .89$ . Items were summed to form a composite measure with higher scores reflecting higher self-esteem.

The Identity subscale of the Erikson Psychosocial Stage

Inventory (Rosenthal, Gurney, & Moore, 1981) was used to measure identity achievement. This scale was developed for use with Australian young people. The subscale has 12 items. A sample item is "I can't decide what I want to do with my life." Response options ranged from 1 (*hardly ever true*) to 5 (*almost always true*). The authors reported adequate internal reliability, Cronbach's  $\alpha = .71$ , for this subscale, and a high reliability was found in the current study,  $\alpha = .86$ . Items were summed to form a composite measure with higher scores reflecting greater identity achievement.

**Convergent validity: Resistance of patriarchal ideologies.** The Silencing the Self subscale of the Silencing the Self Scale (Jack & Dill, 1992) was used to assess perceptions about formation and maintenance of intimate relationships. This scale included nine items with ratings ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item is, "Instead of risking confrontations in close relationships, I would rather not rock the boat." High internal consistency has been reported when used with female undergraduate students, Cronbach's  $\alpha = .78$  (Jack & Dill, 1992) and was found in this study,  $\alpha = .84$ . Items were summed to form a composite measure with higher scores reflecting more self-silencing in intimate relationships.

The Double Standard Scale (Caron, Davis, Halteman, & Stickle, 1993) was used to assess the level of acceptance of traditional sexual double standards. This scale included 10 items with ratings ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item is "A female should never appear to be prepared for a sexual encounter." Respondents were asked to indicate their personal level of agreement or disagreement with each statement. Adequate reliability has been reported, Cronbach's  $\alpha = .72$  (Caron et al., 1993). In the present study, the nouns "woman" and "man" were replaced with "female" and "male." Pilot testing indicated that these terms were more acceptable to individuals similar in age to those included in the current study and were also consistent with the use of female/male in other measures in the questionnaire booklet. This revised measure had high reliability in the current study,  $\alpha = .80$ . Items were summed to form a composite measure with higher scores reflecting more resistance to sexual double standards.

**Sexual orientation.** Sexual orientation was assessed by one item: "Do you see yourself as: 'heterosexual (you are attracted to males only),' 'lesbian (you are attracted to females only),' 'bisexual (you are attracted to males and females),' 'heterosexual, but have had a lesbian experience,' or 'don't know or not sure whether you are attracted to males or females.'" Respondents were asked to check one category that best described them. For the purposes of the present study, two groups were formed. Participants were classified as *heterosexuals* ( $n = 382$ ) if they selected the first option and *other* ( $n = 67$ ) if they selected one of the other four categories.

**Table 2**  
Study 2 Factor Loadings for Items on the Female Sexual Subjectivity Inventory (FSSI)

Scales and Items	Factor Loadings				
	1	2	3	4	5
<i>Factor 1: Sexual body-esteem (FSSI Element 1)</i>					
1. It bothers me that I'm not better looking <sup>a</sup>	-.19	-.83	-.02	-.05	-.04
6. I worry that I am not sexually desirable to others <sup>a</sup>	-.16	-.81	-.02	-.07	-.11
11. Physically, I am an attractive person	.13	.81	.07	.02	.08
16. I am confident that a romantic partner would find me sexually attractive	.22	.71	.06	.02	.10
19. I am confident that others will find me sexually desirable	.18	.80	.10	.00	.02
<i>Factor 2: Sense of entitlement to sexual pleasure from self (FSSI Element 2a)</i>					
2. It is okay for me to meet my own sexual needs through self-masturbation	.00	.02	.07	.92	.01
7. I believe self-masturbating can be an exciting experience	.02	.00	.04	.91	.00
12. I believe self-masturbation is wrong <sup>a</sup>	-.02	.00	-.01	-.75	.00
<i>Factor 3: Sense of entitlement to sexual pleasure from partner (FSSI Element 2b)</i>					
3. If a partner were to ignore my sexual needs and desires, I'd feel hurt	.83	.09	.01	.00	.07
8. It would bother me if a sexual partner neglected my sexual needs and desires	.73	.00	.05	.02	.09
13. I would expect a sexual partner to be responsive to my sexual needs and feelings	.71	.07	.00	.03	.12
17. I think it is important for a sexual partner to consider my sexual pleasure	.73	.14	.00	.06	.12
<i>Factor 4: Self-efficacy in achieving sexual pleasure (FSSI Element 2c)</i>					
4. I would not hesitate to ask for what I want sexually from a romantic partner	.04	.04	.00	.03	.88
9. I am able to ask a partner to provide the sexual stimulation I need	.09	.00	.01	.01	.82
14. If I were to have sex with someone, I'd show my partner what I want	.02	.04	.03	.04	.73
<i>Factor 5: Sexual self-reflection (FSSI Element 3)</i>					
5. I spend time thinking and reflecting about my sexual experiences	.11	.06	.65	.00	.05
10. I rarely think about the sexual aspects of my life <sup>a</sup>	-.02	.00	-.71	-.05	-.02
15. I think about my sexuality	.02	.01	.60	.24	.06
18. I don't think about my sexuality very much <sup>a</sup>	-.15	.00	-.75	-.15	-.05
20. My sexual behavior and experiences are not something I spend time thinking about <sup>a</sup>	-.02	-.07	-.80	-.14	-.04

<sup>a</sup>Reversed item.

## Results

### *FSSI Factor Structure, Item Analysis, and Reliability*

Factor analysis of the full set of FSSI items (23 items) was completed using principal components extraction with oblique rotation. Three of the four new items had low loadings on the intended factor and were discarded; one item was retained in Element 3. Table 2 presents the results of factor analysis with the 20 remaining items. Five factors, accounting for 66% of the variance, were found and interpreted. The five-factor solution corresponded to five scales identified in Study 1 and reflected the three proposed elements of sexual subjectivity as described below.

*Element 1: Sexual body-esteem.* All five items loaded on the second factor. Loadings ranged from an absolute value of .71 to .83. This factor accounted for 13.4% of the variance in items (eigenvalue = 2.7).

*Element 2: Sexual desire and pleasure.* As was found in Study 1, Element 2 had three factors. Three items that assessed "entitlement to sexual pleasure from self" loaded on the fourth factor (7.9% of total variance; eigenvalue = 1.6). "Entitlement to sexual pleasure from a partner" had

four items and loaded on the first factor (28.4% of total variance; eigenvalue = 5.7). The fifth factor had three items concerned with "self-efficacy in achieving sexual pleasure" (6.1% of total variance; eigenvalue = 1.2). All items had loadings ranging from an absolute value of .71 to .92.

*Element 3: Sexual self-reflection.* Five items that assessed "sexual self-reflection" loaded on the third factor. This factor accounted for 10.4% of the variance in items (eigenvalue = 2.1). The five items had loadings ranging from an absolute value of .60 to .80.

Inspection of the distributions of subscale scores revealed that the distributions of all scales approached normality, except for Element 2's "sense of entitlement to sexual pleasure from partner," which showed some negative skew. Reliabilities (Cronbach's  $\alpha$ ) for each FSSI scale for the whole sample and for heterosexual and other girls are shown in Table 3. All scale reliabilities for the whole sample were adequate, ranging from .77 to .87. Reliabilities were adequate and similar among heterosexual and other girls, ranging from .73 to .86 for heterosexual girls and ranging from .73 to .89 for other girls. Overall, the reliability of all 20 items was high, Cronbach's  $\alpha \geq .86$ .



**Table 3**  
Study 2 Descriptive Information and Reliability Coefficients for Scales on the Female Sexual Subjectivity Inventory (FSSI)

FSSI Scale (Element)	No. of Items	Observed Range	M (SD)	Reliability, Cronbach's $\alpha$		
				All Participants (N = 449)	Heterosexual Girls (n = 382)	Other Girls (n = 67)
Element 1: Sexual body-esteem	5	1.0–5.0	3.07 (.94)	.87	.73	.89
Element 2: Sexual desire and pleasure						
2a. Sense of entitlement to sexual pleasure from self	3	1.0–5.0	2.96 (1.24)	.85	.86	.82
2b. Sense of entitlement to sexual pleasure from partner	4	1.2–5.0	3.81 (.83)	.81	.83	.79
2c. Self-efficacy in achieving sexual pleasure	3	1.0–5.0	3.00 (.96)	.77	.75	.84
Element 3: Sexual self-reflection	5	1.0–5.0	3.22 (.85)	.79	.79	.73
FSSI Total	20	–	–	.86	.85	.83

Note. FSSI total observed range, mean, and standard deviation were not reported as the use of a total score for the FSSI is not recommended.

**Table 4**  
Study 2 Correlations Among Scales on the Female Sexual Subjectivity Inventory (FSSI) (N = 449)

FSSI Scale (Element)	1	2a	2b	2c
Element 1: Sexual body-esteem	–			
Element 2: Sexual desire and pleasure				
2a. Entitlement to sexual pleasure from self	.15*	–		
2b. Entitlement to sexual pleasure from partner	.25*	.30*	–	
2c. Self-efficacy in achieving sexual pleasure	.29*	.27*	.47*	–
Element 3: Sexual self-reflection	.21*	.37*	.29*	.21*

\* $p < .005$ .

*FSSI Descriptive Statistics and Intercorrelations*

Correlations between FSSI scales are presented in Table 4. Because there were 10 correlations, the Bonferroni correction was used, resulting in a critical  $\alpha$  of .005. Weak to

moderate significant positive correlations were found between all FSSI elements (and subscales),  $r$  ranged from .15 to .47.

*Convergent Validity*

Table 5 shows correlations between the FSSI and convergent validity measures. Due to the large number of correlations (10 in each set), a Bonferroni corrected critical  $\alpha$  of .005 was set.

*Sexual consciousness and safe sex self-efficacy.* As expected, correlations were significant and positive between all FSSI scales and (a) sexual consciousness ( $r$  ranged from .33 to .51) and (b) safe sex self-efficacy ( $r$  ranged from .24 to .54). It should be noted that this analysis excluded the two girls who described themselves as lesbians. In sum, the magnitude of these correlations suggested convergence.

*General well-being measures.* Five of the 10 correlations between the FSSI subscales and measures of self-esteem and identity achievement were significant and

**Table 5**  
Study 2 Correlations Among Scales on the Female Sexual Subjectivity Inventory (FSSI) and Convergent Validity Measures (N = 449)

FSSI Scale (Element)	Sexual Consciousness	Safe Sex Self-efficacy <sup>a</sup>	Self-esteem	Identity Achievement	Self-Silencing in Intimate Relationships	Resistance to Sexual Double Standards
Element 1: Sexual body-esteem	.35*	.24*	.66*	.47*	–.31*	.19*
Element 2: Sexual desire and pleasure						
2a. Entitlement to sexual pleasure from self	.33*	.34*	.13*	.05	–.14*	.29*
2b. Entitlement to sexual pleasure from partner	.50*	.44*	.14*	.12	–.24*	.27*
2c. Self-efficacy in achieving sexual pleasure	.51*	.54*	.19*	.20*	–.36*	.25*
Element 3: Sexual self-reflection	.37*	.26*	.07	–.03	–.11	.19*

<sup>a</sup>Two girls who reported they were lesbians were excluded,  $n = 447$ .

\* $p = .005$ .

Table 6

Study 2 Sexual Orientation Group Comparisons for Scales on the Female Sexual Subjectivity Inventory (FSSI) ( $N = 449$ )

<i>FSSI Scale (Element)</i>	<i>Heterosexual Girls</i> <i>M (SE)</i>	<i>Other Girls</i> <i>M (SE)</i>	<i>F</i> <i>(1,447)</i>	$\eta^2$
Element 1: Sexual body-esteem	3.06 (.92)	3.12 (1.03)	.25	.00
Element 2: Sexual desire and pleasure				
2a. Entitlement to sexual pleasure from self	2.76 (.06)	3.99 (.14)	82.84*	.11
2b. Entitlement to sexual pleasure from partner	3.75 (.04)	4.16 (.10)	9.54*	.03
2c. Self-efficacy in achieving sexual pleasure	2.91 (.04)	3.48 (.11)	18.66*	.04
Element 3: Sexual self-reflection	3.15 (.04)	3.63 (.10)	13.80*	.04

\* $p < .01$ .

positive, suggesting some convergence between sexual subjectivity and measures of general well-being. Particularly, significant positive correlations between sexual body-esteem and the two variables of self-esteem and identity achievement were found. Also, there was a significant positive correlation between Element 2's "entitlement to sexual pleasure from partner" and self-esteem, and significant positive correlations between "self-efficacy in achieving sexual pleasure" and self-esteem and identity achievement. Element 3's "sexual self-reflection" did not correlate significantly with either self-esteem or identity achievement.

*Resistance to patriarchal ideologies.* As expected, correlations between Elements 1 and 2 of the FSSI and "self-silencing in intimate relationships" were significant and negative. Also as predicted, all scales of the FSSI had significant and positive associations with "resistance to sexual double standards." In sum, there was evidence of convergence of sexual subjectivity with both "self-silencing" and "resistance to sexual double standards."

*Group comparisons.* A multivariate analysis of variance (MANOVA) was conducted to compare the sexual subjectivity, as measured by the FSSI, of heterosexual and other girls. Results revealed a significant multivariate effect for group,  $F(5,443) = 14.88$ ,  $p < .05$ . The effect size indicated that group accounted for 14.4% of the variance in sexual subjectivity. Accordingly, follow-up analyses of variance (ANOVAs) were conducted to compare groups on each FSSI element. Adjusting for the number of dependent variables, the critical  $\alpha$  was set to .01. Table 6 shows group means, standard errors, and results of group comparisons of all FSSI elements. There were significant group differences on all FSSI elements, except body self-esteem. When significant group differences were found, heterosexual girls were significantly lower in sexual subjectivity than other girls. Effect sizes were small, ranging from .03 to .12.

### STUDY 3: CONFIRMATORY FACTOR ANALYSIS AND VALIDITY OF THE FSSI

The primary aim of Study 3 was to confirm the factor structure of the 20-item FSSI with an independent sam-

ple. We also compared the fit of the conceptualized model (M1: three factors, one factor with a higher order structure) with two plausible alternative models: a three-factor, single-order model (M2), and a five-factor model (M3). An indication of good construct validity of the FSSI would be a good-fitting conceptual model.

An additional purpose of Study 3 was to examine associations between FSSI scales and another important aspect of sexual development—sexual anxiety. We predicted that sexual anxiety, shown to be an important factor in the aetiology of sexual dysfunctions (Masters & Johnson, 1970), would be negatively related to all scales of the FSSI.

## Method

### *Participants and Procedure*

Participants were 216 girls aged 17 to 22 years ( $M = 19.9$ ,  $SD = 1.35$ ). All participants were enrolled in a first-year psychology subject offering credit for participation. A 72% response rate was achieved. Participants' demographic characteristics were similar to Studies 1 and 2 (see Table 1). Because two participants neglected to complete a page of the questionnaire, they were excluded from analyses, which reduced the sample size to 214.

Questionnaires and return envelopes were distributed to participants during class time. Participants were asked to complete the enclosed questionnaire in a private environment. After completion, they were instructed to immediately seal the questionnaire in the envelope provided and return it to the psychology department's reception area. Participants were advised that only the principal researchers would have access to and open the envelopes. Anonymity was assured.

### *Materials*

The questionnaire booklet contained a brief demographic questionnaire, the FSSI, and a measure of sexual anxiety. The Sexual Anxiety Inventory (SAI; Janda & O'Grady, 1980) was designed to tap generalized expectancy for nonspecific external punishment for the violation of, or the anticipated violation of, perceived normative sexual standards. The SAI has a forced-choice format of two alternatives. Example

items include: “Masturbation: (a) causes me to worry or (b) can be a useful substitute” and “When I have sexual desires: (a) I worry about what I should do or (b) I do something to satisfy them.” The authors reported high internal consistency, The Kuder-Richardson coefficient was .86, and the test-retest reliability was .84 over 10 to 14 days for girls.

Results

Confirmatory factor analyses were completed using AMOS software with maximum likelihood estimation. Several indices were utilized to determine the overall fit of the models as follows: (a) the chi-square ( $\chi^2$ ) test statistic divided by the degrees of freedom, (b) the Root Mean Square Error of Approximation (RMSEA; Browne & Cudeck, 1993), (c) the Normed Fit Index (NFI; Bentler & Bonett, 1980), and (d) the Comparative Fit Index (CFI; Bentler, 1990). There are several opinions regarding what values represent a good fit for these indices. In relation to the  $\chi^2$  test, ratios of 2 or 3 represent a good fit (Bollen, 1989), RMSEA values below .05 are considered good, and values between .05 and .08 are considered indicative of fair fit (Kaplan, 2000). For the NFI and CFI, acceptable values are above .90, and values over .95 are considered indicative of good fit (Kaplan, 2000).

For the series of models tested, all correlations between latent factors were freed and all covariances between error terms were constrained to zero. Results for the conceptualized model (M1) showed that the  $\chi^2$  was significant,  $\chi^2(164) = 406.58, p < .01$ . Nevertheless, the  $\chi^2$  divided by the degrees of freedom ratio of 2.4 was acceptable, and most other indices indicated a fair to good fit to the data; RMSEA = .08, NFI = .96, and CFI = .98. All factor loadings were significantly different from zero ( $p < .01$ ) and ranged from an absolute value of .48 to .87, with all but two loadings greater than an absolute value of .50. M1 and standardized factor loadings are shown in Figure 1 (for simplicity, error variances have been omitted).

Results for M2 (three-factor and single-order) showed poorer fit to the data than M1,  $\chi^2(167) = 696.32, p < .01$ ;  $\chi^2$ -difference test (3) = 289.74,  $p < .05$ . The  $\chi^2$  divided by the degrees of freedom ratio of 4.2 was good. Other indices usually indicated fair fit to the data; RMSEA = .11, NFI = .93, and CFI = .95. Factor loadings were all significantly different than zero ( $p < .01$ ) and ranged from an absolute value of .37 to .85.

Results for M3 (five-factor model) were similar to those found for the conceptualized model (i.e., M1). Specifically, M3 had a fair to good fit to the data,  $\chi^2(160) = 379.34, p < .01$ ;  $\chi^2/df = 2.4$ , RMSEA = .08, NFI = .96, and CFI = .98. However, the  $\chi^2$ -difference test (4) = 27.24,  $p < .05$  did reveal a slightly better fit to the data than M1. All factor loadings were similar when M1 and M3 were compared.

Reliability estimates for the FSSI scales were good,  $\alpha = .82, .81, .81, .85, \text{ and } .78$ , respectively. Correlations between FSSI scales were similar to those reported in Study 2, with  $r$  ranging from .20 to .53. As predicted, there were

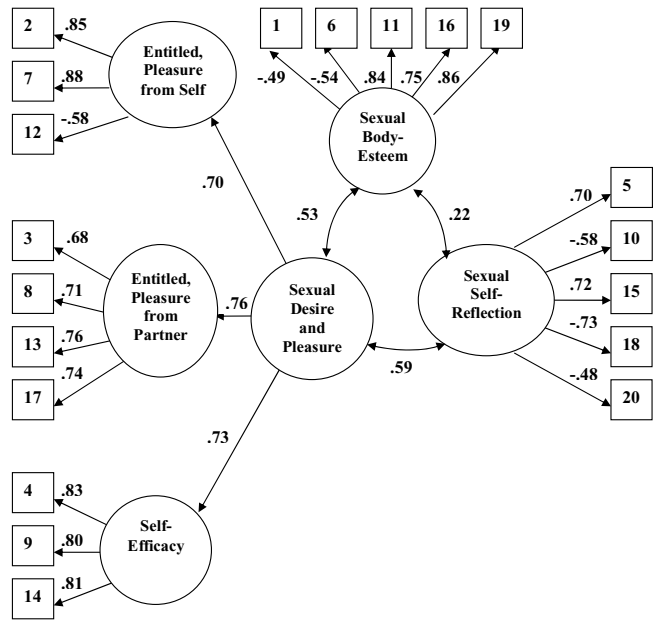


Fig. 1. Study 3 conceptual model (M1) and standardized factor loadings for items on the Female Sexual Subjectivity Inventory (FSSI) (N = 214).

significant correlations ( $p < .01$ ) between all FSSI scales and sexual anxiety,  $r = -.35, -.38, -.30, -.50, \text{ and } -.21$ , respectively.

DISCUSSION

The purpose of this series of three studies was to construct and validate an instrument to assess aspects of female sexual subjectivity that are often discussed in theoretical literature and examined in qualitative studies but rarely quantitatively examined in psychological research. We developed this measure for girls in late adolescence and emerging adulthood, because it is during this period of normative development that sexual exploration accelerates and many of the issues central to sexual subjectivity are enacted. As such, it may also be a pivotal time when interventions and programs focusing on adolescent sexual health may be most effective.

For many years, feminist researchers have listened to and reported girls’ narratives of their struggle to possess sexual subjectivity, which means experiencing pleasure *from* their bodies and *in* their bodies. Guided largely by this body of research, we operationally defined three core elements of female sexual subjectivity: sexual body-esteem, sexual desire and pleasure, and sexual self-reflection. In our search of the literature, we identified many measures available to assess aspects of sexuality, but none appeared to grasp the essence of female sexual subjectivity, as Martin (1996) and others (e.g., Tolman, 2002) have defined it and most importantly, positioned it within the context of girls’ lived experiences. Accordingly, the major contribution of our scale is

that it adopts a framework that: (a) represents sexual subjectivity as a multidimensional phenomenon, (b) focuses on the normative and health-enhancing aspects of sexual-ity, (c) acknowledges that sexual subjectivity is socially constructed, and as such, is embedded in gendered meanings, and (d) recognizes that possession of sexual subjectivity requires some active resistance of patriarchal ideologies. The identification of these elements and this tool for measurement is also likely to assist in the development of sexuality education programs that not only discourage undesirable sexual behaviors and related problems, but also encourage those pathways that promote sexual health (Brooks-Gunn & Paikoff, 1993).

The Female Sexual Subjectivity Inventory (FSSI) comprises 20 items representing three core elements and five factors that assess: (a) sexual body-esteem (self-perceptions of sexual attractiveness and desirability), (b) sexual desire and pleasure (including three subscales: sense of entitlement to sexual pleasure from self, sense of entitlement to sexual pleasure from partner, and self-efficacy in achieving sexual pleasure),<sup>3</sup> and (c) sexual self-reflection (critical reflection of sexual self and sexual experiences). Results show that the FSSI has adequate psychometric properties. The low to moderate positive correlations between FSSI elements indicate that there are theoretical and practical differences between these components of sexual subjectivity, however, they do share some variance. The results of confirmatory factor analysis of the FSSI items also provide support for three factors with a higher order structure to Element 2, "sexual desire and pleasure," as originally proposed. The simpler, three-factor model provided an inferior fit to the data. Although the  $\chi^2$  difference test indicated that the five-factor model with no higher order structure had a slight, but significantly better fit than the conceptualized model, other fit indices were similar. On balance, the a priori model was maintained because the differences in model fit were quite small and not consistent across all fit indices, and factor loadings were similar when models were compared. Hence, the conceptual model was retained pending additional empirical evidence that there is no higher order structure to some aspects of sexual subjectivity. Yet, it is clear that the FSSI measures five elements of sexual subjectivity that should usually be considered separately. Further, all subscale reliabilities were adequate to high for the whole sample, and adequate or high and similar when subgroups of heterosexual and other girls were examined. These findings indicate the potential for use of the FSSI to measure multiple aspects of sexual subjectivity with a range of adolescent and young adult girls.

Findings of the current study suggest that girls with higher FSSI scores were also higher in sexual consciousness, and after excluding lesbians, safe sex self-efficacy. In other words, girls with relatively higher sexual subjectivity were more aware of the internal aspects of their sexuality (e.g., sexual feelings, motivations, desires, tendencies, preferences) and felt more confident in their ability to purchase, carry, know how to use, and discuss condom use with

a partner. Girls with relatively more sexual subjectivity also had more voice within close relationships and had more resistance to sexual double standards. These latter findings offer some support for the assertion that, for girls to possess sexual subjectivity, they must be both aware of and resilient to social forces against sexual subjectivity in girls (Martin, 1996; Tolman, 2002). The different elements of sexual subjectivity, however, were differentially associated with measures of self-esteem and identity achievement. Although modest in magnitude, these correlations are more remarkable when it is considered that self-esteem and identity achievement are global constructs, and yet, some of these specific perceptions in the sexual domain were associated with these global markers of well-being (for a discussion see Prentice & Miller, 1992). As anticipated, the elements of sexual subjectivity were negatively associated with sexual anxiety, and assuming that lower levels of sexual anxiety reflect healthier sexual functioning, higher scores on FSSI elements reflect more positive sexual well-being.

Significant differences between heterosexual and other girls were found on all elements of sexual subjectivity, with the exception of sexual body-esteem (FSSI Element 1). Compared to girls who identify as heterosexual, other girls (lesbians, bisexuals, heterosexuals with same-sex experience, and girls who were unsure) have a higher sense of entitlement to sexual pleasure from the self and from their partner, are more self-efficacious in achieving sexual pleasure, and reflect more on the sexual aspects of their life. Consistent with reciprocal determinism proposed by Social Cognitive Theory (Bandura, 1989) and previous research (e.g., Beren et al., 1996; Buzwell & Rosenthal, 1996; Coleman et al., 1983), one possible explanation may rest within the experiences of the group of girls we have labelled "other" to contrast them with heterosexual girls. Other girls may have had a wider range of experience with different sexual interests, practices and contexts, which, in turn, affected their cognitions, emotions, and self-beliefs of efficacy in the sexual domain. In contrast with Burch's (1998) argument that lesbians and heterosexual girls have similar difficulties in achieving sexual subjectivity, the current results suggest that being in a sexual-minority group may make sexuality more salient during this life stage and may result in considerably more focus on sexual self-discovery and definition. This is an interesting finding and offers much to the body of research focused on the risks for suicide, peer rejection, victimization, depression, and dissonance among sexual minority youth. The findings remind us that, although the experiences of sexual minority youth may have some negative influences on functioning, these experiences may also promote sexual subjectivity and agency (e.g., Diamond, 2003).

Given the overall findings, the FSSI is a valid and reliable scale that may assist in future research on female adolescent sexuality and sexual development. Future research might take the direction of attempting to improve the FSSI itself. The current findings are based on cross-sectional data and did not include test-retest reliability analyses or a test of discriminant validity. In addition, the FSSI was developed

relying on somewhat homogenous samples of Australian girls. Before using the FSSI with different populations, we suggest further pilot testing and validation. A note here to researchers interested in using this measure is that, because sexual subjectivity has been defined as a multidimensional construct, FSSI scales are not intended to be summed to form a single construct of female sexual subjectivity. Rather, each scale stands alone as a unique aspect of this very complex phenomenon.

Some may argue against the need for a gender-specific measurement of sexual subjectivity and argue whether this may draw an artificial distinction between male and female sexuality. However, sexuality is a gendered phenomenon. In recent years, there has been a substantial increase in research focusing on adolescent sexuality, with a tangible shift toward a normative, health perspective. Female sexual health has been given more attention than ever before. However, our empirical focus and understanding of female sexual health remains in its infancy, and is only just emerging from the shadows of patriarchal ideologies and problem-focused research. Advancing the way forward, Tolman and her colleagues (2003) encourage gender complementarity and are developing, in tandem, sexual health models for males and females. In light of this advancement, future research might focus on the development of a complementary instrument for male adolescents, based on narratives of their lived experiences. This is an important direction in sexuality research that moves us beyond the examination of gender differences.

Initial submission: August 10, 2004

Initial acceptance: April 20, 2005

Final acceptance: October 17, 2005

## NOTES

1. Schoolies™ Week is a month-long graduation festival celebrated by Year 12 school leavers from all around Australia. It takes place after the Year 12 Leaving Certificate between mid-November and mid-December. The event is predominantly held in Queensland's Gold Coast and every year thousands of Year 12 students from around Australia come to holiday and celebrate their end of school years.
2. To avoid duplicity, descriptive statistics and correlations between FSSI elements and subscales are not reported for Study 1 because they were similar to those reported for Study 2.
3. Although we originally expected two lower-order factors for the sexual desire and pleasure element of sexual subjectivity, three conceptually clear factors were found. The separation of an individual's sense of entitlement to sexual pleasure through self-masturbation from an individual's sense of entitlement to pleasure from a partner is an important distinction that added richness and clarity to the constructs under investigation.

## REFERENCES

- Andersen, B. L., & LeGrand, J. (1991). Body image for women: Conceptualization, assessment, and a test of its importance to sexual dysfunction and medical illness. *Journal of Sex Research, 28*, 457–477.
- Bandura, A. (1989). Social cognitive theory. *Annals of Child Development, 6*, 1–60.
- Baumeister, R. F., & Twenge, J. M. (2002). Cultural suppression of female sexuality. *Review of General Psychology, 6*, 166–203.
- Bentler, P. M. (1990). Comparative fit indices in structural models. *Psychological Bulletin, 107*, 238–246.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness-of-fit in the analysis of covariance structures. *Psychological Bulletin, 88*, 588–606.
- Beren, S. E., Hayden, H. A., Wilfley, D. E., & Grilo, C. M. (1996). The influence of sexual orientation on body dissatisfaction in adult men and women. *International Journal of Eating Disorders, 20*, 135–141.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Brooks-Gunn, J., & Paikoff, R. L. (1993). "Sex is a gamble, kissing is a game": Adolescent sexuality and health promotion. In E. O. Nightingale (Ed.), *Promoting the health of adolescents: New directions for the twenty-first century* (pp. 180–208). New York: Oxford University Press.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In J. S. Long (Ed.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Bukowski, W., Sippola, L., & Brender, W. (1993). Where does sexuality come from?: Normative sexuality from a developmental perspective. In S. M. Hudson (Ed.), *The Juvenile sex offender* (pp. 84–103). New York: Guilford.
- Burch, B. (1998). Lesbian sexuality/female sexuality: Searching for sexual subjectivity. *Psychoanalytic Review, 85*, 349–372.
- Buzwell, S. (1995). *Constructing a sexual self: Sexual self-perceptions, sexual styles and sexual risk-taking in adolescence*. Unpublished doctoral thesis, La Trobe University, Melbourne, Australia.
- Buzwell, S., & Rosenthal, D. A. (1996). Constructing a sexual self: Adolescents' sexual self-perceptions and sexual risk-taking. *Journal of Research on Adolescence, 6*, 489–513.
- Caron, S. L., Davis, C. M., Halteman, W. A., & Stickle, M. (1993). Predictors of condom-related behaviours among first-year college students. *Journal of Sex Research, 30*, 252–259.
- Coleman, E., Hoon, P., & Hoon, E. (1983). Arousability and sexual satisfaction in lesbian and heterosexual women. *Journal of Sex Research, 19*, 58–73.
- Crockett, L. J., Bingham, C. R., Chopak, J. S., & Vicary, J. R. (1996). Timing of first sexual intercourse: The role of social control, social learning, and problem behaviour. *Journal of Youth and Adolescence, 25*, 89–111.
- Cyranowski, J. M., & Andersen, B. L. (1998). Schemas, sexuality and romantic attachment. *Journal of Personality and Social Psychology, 74*, 1364–1379.
- Daniluk, J. C. (1993). The meaning of experience of female sexuality. *Psychology of Women Quarterly, 17*, 53–69.
- Derogatis, L. R., & Melisarotos, N. (1979). The DSFI: A multi-dimensional measure of sexual functioning. *Journal of Sex and Marital Therapy, 5*, 244–281.
- Diamond, L. M. (2003). Love matters: Romantic relationships among sexual-minority adolescents. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory,*

- research, and practical implications (pp. 85–108). Mahwah, NJ: Erlbaum.
- Fine, M. (1988). Sexuality, schooling, and adolescent females: The missing discourse of desire. *Harvard Educational Review*, 58, 29–53.
- Florsheim, P. (Ed.). (2003). *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications*. Mahwah, NJ: Erlbaum.
- Haffner, D. W. (1998). Sexual health for American adolescents. *Journal of Adolescent Health*, 22, 453–459.
- Harter, S., Waters, P. L., Whitesell, N., & Kastelic, D. (1998). Level of voice among female and male high school students: Relational context, support and gender orientation. *Developmental Psychology*, 34, 892–901.
- Hendrick, S., & Hendrick, C. (1987). Multidimensionality of sexual attitudes. *Journal of Sex Research*, 23, 502–526.
- Holland, J., Ramazanoglu, C., Sharpe, S., & Thomson, R. (1992). Pleasure, pressure and power: Some contradictions of gendered sexuality. *The Sociological Review*, 40(4), 645–674.
- Holmes, W., Clemmens, D., & Froman, R. (2000). The Female Sexuality Questionnaire: Instrument development. *Journal of Nursing Measurement*, 8, 87–99.
- Horne, S., & Zimmer-Gembeck, M. J. (2005). Female sexual subjectivity and well-being: Comparing late adolescents with different sexual experiences. *Sexuality Research and Social Policy: Journal of NSRC*, 2, 25–40.
- Hughes, T. G., & Snell, W. E. (1990). Communal and exchange approaches to sexual relations. *Annals of Sex Research*, 3, 149–163.
- Jack, D. C. (1991). *Silencing the self: Women and depression*. London: Harvard University Press.
- Jack, D. C., & Dill, D. (1992). The Silencing the Self Scale. *Psychology of Women Quarterly*, 16, 97–106.
- Janda, L. H., & O'Grady, K. E. (1980). Development of a sex anxiety inventory. *Journal of Consulting and Clinical Psychology*, 48, 169–175.
- Kaplan, D. (2000). *Structural equation modeling: Foundations and extensions*. Thousand Oaks, CA: Sage.
- Keating, D. P. (1990). Adolescent thinking. In G. R. Elliott (Ed.), *At the threshold: The developing adolescent* (pp. 54–89). Cambridge, MA: Harvard University Press.
- Laumann, E. O. (1994). *The social organization of sexuality: Sexual practices in the United States*. Chicago: University of Chicago Press.
- Lees, S. (1993). *Sugar and spice: Sexuality and adolescent girls*. London: Penguin.
- Martin, K. A. (1996). *Puberty, sexuality, and the self: Girls and boys at adolescence*. New York: Routledge.
- Masters, W. H., & Johnson, V. E. (1970). *Human sexual inadequacy*. Boston: Little, Brown.
- Mendelson, B. K., Mendelson, M. J., & White, D. R. (2001). Body esteem scale for adolescents and adults. *Journal of Personality Assessment*, 76, 90–96.
- Moore, S., & Rosenthal, D. A. (1993). *Sexuality in adolescence*. New York: TJ Press (Padstow) Ltd.
- Nicolson, P. (1994). Anatomy and destiny: Sexuality and the female body. In P. Nicolson (Ed.), *Female sexuality: Psychology, biology and social context* (pp. 7–25). New York: Harvester Wheatsheaf.
- Prentice, D. A., & Miller, D. T. (1992). When small effects are impressive. *Psychological Bulletin*, 112, 160–164.
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.
- Rosenthal, D. A., Gurney, R. M., & Moore, S. M. (1981). From trust to intimacy: A new inventory for examining Erikson's stages of psychosocial development. *Journal of Youth and Adolescence*, 10, 525–537.
- Rosenthal, D. A., Moore, S., & Flynn, I. (1991). Adolescent self-efficacy, self-esteem and sexual risk-taking. *Journal of Community & Applied Social Psychology*, 1, 77–88.
- Selverstone, R. (1989). Adolescent sexuality: Developing self-esteem and mastering developmental tasks. *SIECUS*, 18, 1–3.
- Snell, W. E., Fisher, T. D., & Miller, R. S. (1991). Development of the sexual awareness questionnaire: Components, reliability, and validity. *Annals of Sex Research*, 4, 65–92.
- Snell, W. E., & Papini, D. (1989). The sexuality scale: An instrument to measure sexual-esteem, sexual-depression and sexual-preoccupation. *Journal of Sex Research*, 26, 256–262.
- Strong, S. M., Williamson, D. A., Netemeyer, R. G., & Geer, J. H. (2000). Eating disorder symptoms and concerns about body differ as a function of gender and sexual orientation. *Journal of Social and Clinical Psychology*, 19, 240–255.
- Thompson, S. (1990). Putting a big thing into a little hole: Teenage girls' accounts of sexual initiation. *Journal of Sex Research*, 27, 341–361.
- Thompson, S. (1995). *Going all the way: Teenage girls' tales of sex, romance and pregnancy*. New York: Hill and Wang.
- Tolman, D. L. (1994). Doing desire: Adolescent girls' struggles for/with sexuality. *Gender & Society*, 8, 324–342.
- Tolman, D. L. (1999). Female adolescent sexuality in relational context: Beyond sexual decision making. In N. G. Johnson, M. C. Roberts, & J. Worell (Eds.), *Beyond appearance: A new look at adolescent girls* (pp. 227–242). Washington, DC: American Psychological Association.
- Tolman, D. L. (2002). *Dilemmas of desire*. Cambridge, MA: Harvard University Press.
- 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. *Journal of Sex Research*, 40, 4–13.
- Welsh, D. P., Rostosky, S. S., & Kawaguchi, M. C. (2000). A normative perspective of adolescent girls' developing sexuality. In J. W. White (Ed.), *Sexuality, society, and feminism* (pp. 111–140). Washington, DC: American Psychological Association.
- Zak, A., & McDonald, C. (1997). Satisfaction and trust in intimate relationships: Do lesbian and heterosexual women differ? *Psychological Reports*, 80, 904–906.
- Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2004). A prospective study of intraindividual and peer influences on adolescents' heterosexual romantic and sexual behavior. *Archives of Sexual Behaviour*, 33, 381–394.