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ORIGINAL ARTICLE

Indecent Exposure: Self-objectification and Young Women's Attitudes Toward Breastfeeding

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Abstract The sexualization of the breast may lead women who internalize the sexual objectification of their bodies to have more negative attitudes toward breastfeeding. The purpose of the present study was to examine self-objectification in relation to young women's attitudes toward and concerns about breastfeeding. Two hundred and seventy-five female undergraduates completed a survey with questions that assessed their plans for infant feeding, attitudes toward breastfeeding, concerns about breastfeeding, and self-objectification. Women who scored higher on measures of self-objectification were more likely to view public breastfeeding as indecent and to be concerned that breastfeeding would be embarrassing and would negatively impact their bodies and sexuality. Self-objectification was not related to general attitudes toward breastfeeding or to young women's future infant feeding plans. Implications for theory and future research are discussed.

Keywords Self-objectification · Breastfeeding · Attitudes

Breastfeeding affords women and infants many well-documented health benefits (American Academy of Pediatrics, 2005; American Dietetic Association, 2001; Dermer, 1998). Thus, the American Academy of Pediatrics recommends that women breastfeed their infants exclusively for at least 6 months. According to the National Center for Health Statistics (2001) many women either do not initiate breastfeeding or the duration of breastfeeding falls short of this recommendation. Callen and Pinelli (2004) reviewed 20 studies of breastfeeding incidence and duration conducted in four countries. From their extensive review, they concluded that women who were married, older, and from higher socioeconomic groups had the highest incidence and duration of breastfeeding. In the U.S., African American women are less likely than European or Latin American women to breastfeed; however, breastfeeding rates and duration among African American women are increasing (Ryan, Wenjun, & Acosta, 2002).

Research on factors that influence women's infant feeding decisions is critical to the success of breastfeeding promotion programs, however, the focus of extant research is primarily on intrapersonal predictors of breastfeeding behavior (Galtry, 1997). This narrow focus largely denies and ignores the complexity of women's infant feeding decisions, women's concerns about and experiences with the act of breastfeeding, and the extent to which cultural values and social forces shape women's breastfeeding attitudes and decisions. Consistent with this narrow focus is the absence of feminist scholarship and theorizing on breastfeeding (Blum, 1993; Carter, 1996; Hausman, 2003). McKinley and Hyde (2004) articulated various issues about breastfeeding that pose dilemmas for feminists, which may contribute to this neglect. These include questions about choice (Bartlett, 2003), equality and difference (Blum, 1993), gendered divisions of labor (Law, 2000), and cultural constructions of the female body (Stearns, 1999; Young, 2003).

Given and/or despite the ideologies and politics attached to it, we argue that breastfeeding should be of concern and interest to feminist behavioral scientists, as it is a crucial example of the ways that different discourses about femininity and the female body clash. Research that attends

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to the broader sociocultural context underlying these clashing discourses is critical to feminist theory, breastfeeding promotion programs, and women's infant feeding decisions and experiences. Central to this broader context, at least within Western cultures, is the sexualization of the female breast, a phenomenon that shapes others' perceptions of breastfeeding women as well as women's own breastfeeding decisions and experiences. In the present study we explored young women's attitudes toward aspects of breastfeeding that might be grounded in or emerge from the sexualization of the breast, such as attitudes toward public breastfeeding, embarrassment about breastfeeding, and concerns about the impact of breastfeeding on one's sexuality and body shape.

Objectification Theory

Fredrickson and Roberts' (1997) objectification theory postulates that, in a culture that objectifies a sexually mature woman's body, women are socialized to view and evaluate their bodies from the perspective of an outside observer. Women's internalization of the objectification of their bodies is referred to as self-objectification. Self-objectification involves a prioritization of physical traits associated with appearance (e.g., sex appeal) over those associated with health (e.g., muscular strength). This appearance-based physical self-concept can lead to a preoccupation with and excessive management of one's appearance. McKinley and Hyde's (1996) similar construct of objectified body consciousness describes a habitual monitoring of one's appearance and resultant body shame. Self-objectification is typically examined as a correlate of psychological outcomes such as eating disorder symptomatology (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998, Moradi, Dirks, & Matteson, 2005), depression (Muehlenkamp & Saris-Baglama, 2002), and appearance evaluations and concerns (Calogero, 2004; Muehlenkamp, Swanson, & Brausch, 2005).

Researchers are also beginning to examine the applicability of objectification theory to women's attitudes toward their reproductive functions. Roberts and Waters (2004) argued that bodily functions associated with reproduction, such as menstruation, lactation, and childbirth, are reminders of women's corporeality and inferior status. They argued that self-objectification may represent a "flight" (p. 10) from this corporeality, which leads women to monitor or sanitize their bodies so that they conceal evidence of bodily functions, such as menstruation, that are viewed as disgusting and incompatible with physical attractiveness and sexual availability. Women who score higher on measures of self-objectification have been found to report more negative attitudes toward menstruation (Johnston-Robledo, Ball, Lauta, & Zekoll, 2003; Roberts, 2004).

Pregnancy and lactation, on the other hand, represent valued activities that render women's bodies "maternally successful" (Dworkin & Wachs, 2004, p. 610) or as "good maternal bodies" (Stearns, 1999, p. 308). Yet these experiences are also problematic for women because they too are incompatible with women's sexual attractiveness. During pregnancy and the postpartum period, the body does not conform to narrow standards of beauty, and during breastfeeding the breasts are not sexual objects. Furthermore, breastfeeding and breastmilk, like menstruation and menstrual blood, are viewed by some as disgusting (Bramwell, 2001; Rozin & Fallon, 1980). Women who self-objectify may be especially motivated to conceal or avoid breastfeeding because it interferes with their ability to reach the ideal sexualized and sanitized female body.

Sexualization of breasts

Feminist scholars have written extensively on the sexual objectification of the breast in U.S. culture specifically and Western cultures more broadly (Dettwyler, 1995; Ussher, 1989; Yalom, 1997;Young, 2003). A central theme in this scholarship involves the perceived contradiction or paradox of breasts as simultaneously fetishized as sexual objects for men's pleasure and also viewed as a valued source of nutrition for infants (Carter, 1996; Rodriguez-Garcia & Frazier, 1995; Young, 2003). This paradox is reflected in Young's (2003, p. 159) statement:

> The border between motherhood and sexuality is lived out in the way women experience their breasts and in cultural marking of breasts. To be understood as sexual, the feeding function of the breasts must be suppressed, and when the breasts are nursing they are desexualized.

As a result of this perceived contradiction breastfeeding women may worry that breastfeeding will render their breasts unattractive, that they will be perceived as maternal as opposed to sexual, and/or that they are engaging in an activity that is viewed as disgusting and inappropriate (Rodriguez-Garcia & Frazier, 1995; Stearns, 1999; Young, 2003). Researchers (Hannon, Willis, Bishop-Townsend, Martinez, & Scrimshaw, 2000; Kloeblen-Tarver, Thompson, & Miner, 2002) have found that some pregnant women cite saggy breasts as a disadvantage of or a reason not to breastfeed. Latina and African American pregnant adolescents were found to view public breastfeeding as a public display of sexual behavior, and they believed that others viewed breastfeeding as "nasty" (Hannon et al., 2000). Earle (2002) found that women who breastfed as well as

those who formula fed believed that breastfeeding was both embarrassing and disgusting. In a study that compared undergraduates' perceptions of women who bottle feed with those women who breastfeed, Forbes, Adams-Curtis, Hamm, and White (2003) found that students who reported higher levels of erotophobia (discomfort with and avoidance of sexual stimuli) had more negative perceptions of women who breastfeed. This effect was particularly strong among female participants, and it may reflect a discomfort with the dual role of breasts as sites of sexual satisfaction and as a means to feed infants. Clearly continued investigation of the sexual significance of the breast as a factor that shapes women's breastfeeding attitudes and behavior is warranted.

According to feminist scholars (Dettwyler, 1995; Ussher, 1989; Young, 2003) the sexualization of women's breasts underlies the taboo against breastfeeding in public. Ussher (1989, p. 22) noted that "It is ironic that breastfeeding an infant in public is still widely frowned upon, denying the natural function of the breasts at the same time objectifying them for the sexual gratification of men." According to Dettwyler (1995), two widely publicized cases of breastfeeding women being asked to leave public settings have contributed to the passage of state legislation to protect breastfeeding women in America. However, only 15 of the 50 states in the U.S. have enacted legislation that makes breastfeeding exempt from public indecency laws, and only 32 states allow women to breastfeed anywhere in public (National Conference of State Legislatures, 2005). Debates about public breastfeeding in the U.S. and the harassment of breastfeeding women continue despite this legislation. Women breastfeeding their babies in public recently have been asked to leave bookstores, health clubs, and coffee shops (http://www.007b.com/breastfeeding_public.php, 2006).

Empirical studies have demonstrated a widespread social disapproval of public breastfeeding. McIntyre, Hiller, and Turnbull (2001) reported from their telephone survey of over 2,000 Australian adults that 82% agreed that bottle feeding is more acceptable in public than breastfeeding, and 48% agreed that men are bothered by breastfeeding in public. Li et al. (2004) conducted a mail survey of 3714 U.S. adults and found that only 43% of their participants believed that women should have the right to breastfeed in public, and only 27% thought it was appropriate to portray breastfeeding women on television. Undergraduate students have also been found to view breastfeeding in public as inappropriate and embarrassing, and they expressed discomfort when in the presence of breastfeeding women (Geck, 2001; O'Keefe, Henly, & Anderson, 1998).

This unfriendly breastfeeding environment is easily perceived by breastfeeding women and shapes their breastfeeding attitudes and experiences. Earle (2002) found that both women who breastfed and those who formula fed felt uncomfortable with breastfeeding in public, and they believed that breastfeeding is both embarrassing and disgusting. In her qualitative study of women's breastfeeding experiences, Stearns (1999) found that women perceived the environment for public breastfeeding as a downright hostile one. In response to this environment, her participants' narratives reflected themes of the need to breastfeed discreetly and only in certain settings. They also reported the need to shift their understanding of their breasts from a source of sexual pleasure to a food source for their babies. These worries and experiences may lead women, especially those more prone to internalize or endorse the sexual objectification of the breast, to avoid, or have negative attitudes toward, breastfeeding, a bodily function that interferes with or complicates the view of women as sexually available and attractive.

The present study

According to objectification theory, women with higher levels of objectified body consciousness may internalize the sexualization of their breasts, viewing them as objects for the sexual gratification of an intimate partner. It is possible that women with strong tendencies toward self-objectification will have negative attitudes toward or concerns about aspects of breastfeeding that clash with the sexual objectification of the breasts. Thus high scores on self-objectification constructs may not be associated with attitudes toward breastfeeding or intentions to breastfeed but may be associated with negative attitudes toward public breastfeeding and concerns about the impact of breastfeeding on their sexuality and body shape.

Findings from a recent study of the role of self-objectification in lower income pregnant women's infant feeding attitudes and behavior (Johnston-Robledo & Fred, in press) confirms these predictions. In that study, self-objectification constructs were not associated with breastfeeding intentions or attitudes. However, women with higher scores on the Body Shame subscale of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996) scored higher on measures of concern about the impact of breastfeeding on their breast size, body shape, and sexual relationships. Further, higher scores on this subscale and the Self-objectification Scale (SOQ; Noll & Fredrickson, 1998) were correlated with concerns about breastfeeding as embarrassing, particularly in front of others. In a study of undergraduate women's attitudes toward multiple reproductive events, Johnston-Robledo, Sheffield, Voigt, and Wilcox-Constantine (2006) found that young women with high scores on both the Self-surveillance and Body shame subscales of the OBCS also had high scores on measures of concern about breastfeeding as

negatively impacting their bodies and as inappropriate in front of others.

The purpose of the present study was to further test the applicability of objectification theory to the domain of breastfeeding by attempting to replicate previous findings with a sample of undergraduate women who were not anticipating a breastfeeding decision or experience in their near futures. It was hypothesized that: (a) young women would have concerns about breastfeeding related to shame, body shape, and sexuality; (b) young women would have negative attitudes toward breastfeeding in public; (c) women with these concerns and attitudes toward breastfeeding in public would have more negative attitudes toward breastfeeding in general. It was further hypothesized that self-objectification constructs would be associated with: (a) concerns about breastfeeding related to shame, body shape, and sexuality; (b) the view that larger breasts due to breastfeeding would be attractive; (c) negative attitudes toward breastfeeding in front of others.

Method

Participants

Participants in the present study were 275 female undergraduates from a small state university campus in the northeastern U.S.. The mean age was 18.50 with a range of 18–22 years. Ninety-three percent were European American, and seven percent were from other ethnic groups. Participants were not asked to report their sexual orientation. None of these women were currently mothers, but 87% planned to have children of their own in the future.

Measures

Demographic information

Participants were asked a variety of demographic questions including age, ethnicity, and relationship status. They were also asked if they were mothers and if they planned to have children in the future.

Measure of infant feeding plans

On this measure, participants indicated whether they had ever thought about how they would feed a new baby. They were also asked how they thought they would feed their future infants. Students who indicated that they planned to breastfeed were also asked questions about their planned duration for breastfeeding; and possible plans for supplementation with formula.

Public breastfeeding as indecent

On a Likert scale that ranged from 1 (strongly disagree) to 7 (strongly agree), participants rated eight items about breastfeeding in public (e.g., Pictures of breastfeeding women are obscene.; I would be embarrassed if a friend breastfed in front of me.). After reverse coding two items, scores were computed by summing all items. Higher scores indicate stronger endorsement of the view that breastfeeding in public is indecent. Internal consistency is inferred from a Cronbach's alpha level of .84.

Larger breasts are attractive

A miscellaneous item (e.g., Larger breasts due to breastfeeding would make me feel more attractive) was included on the survey to explore further the participants' attitudes toward their breasts. Ratings on this item were made on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Iowa Infant Feeding Attitude Scale (IIFAS: De La Mora, Russell, Dungy, Losch, & Dusdieker, 1999)

This measure consists of 17 items that assess attitudes toward breast and formula feeding. Using a Likert scale that ranges from 1 (strongly disagree) to 5 (strongly agree) participants responded to items regarding a variety of issues related to infant feeding, such as convenience, health benefits, and father's involvement (e.g., Breastfeeding increases mother-infant bonding.; Formula feeding is more convenient than breastfeeding). Higher scores indicate more positive attitudes toward breastfeeding. The authors of the scale reported a moderate level of internal consistency (Cronbach's alpha = .86), although the Cronbach's alpha for our sample was only. 72. The scale was also demonstrated by the authors to have both predictive and concurrent validity.

Future concerns about breastfeeding

This measure assessed women's psychosocial concerns about potential future breastfeeding experiences. Ten items related to shame about breastfeeding as well as to the extent to which breastfeeding might impact women's body shape and sexuality were generated based on the literature regarding women's concerns about breastfeeding (e.g., I am concerned that my body might return to normal too slowly if I breastfeed.; I am concerned that leaky breasts will be embarrassing). Participants indicated, on a Likert scale that ranged from 1 (strongly disagree) to 7 (strongly agree), their degree of concern about each item; higher

scores indicate a greater level of concern. See results section for reliability information.

Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996)

This scale consists of three subscales that measure Surveillance, Body Shame, and Appearance Control Beliefs, all of which comprise the construct of objectified body consciousness. Two of those subscales were used for the present study: a) Surveillance (e.g., "During the day I think about how I look many times."); and Body Shame (e.g., "I would be ashamed for people to know what I really weigh."). There are 8 items on each subscale which are rated using a Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree). McKinley and Hyde (1996) reported solid internal consistency levels for both the Surveillance (Cronbach's alpha=.89) and Body Shame (Cronbach's alpha=.75) subscales. For our samples these values were .81 and .83, respectively.

Self-objectification Questionnaire (SOQ; Noll & Fredrickson, 1998)

This scale measures self-objectification by comparing the value placed on appearance-based physical attributes (e.g., sex appeal) and competence-based physical attributes (e.g., muscular strength). Participants rank order 12 attributes for their importance to their physical self-concept. A total score is obtained by adding the rankings for the two types of attributes and subtracting the competency-based score from the appearance based score. Scores can range from −36 to 36, where higher scores on this measure indicate higher levels of self-objectification. Noll and Fredrickson (1998) argued that correlations between scores on this measure and measures of appearance anxiety and body image demonstrate its construct validity. No information is provided regarding the reliability of this scale.

Procedure

Participants were recruited from the subject pool in the Psychology Department. They were invited to participate in a "women's health" study so as to minimize selection bias. The students completed questionnaires in a designated classroom in groups of 15–30. After reading the consent form, which explained that the study was about breastfeeding, none of the participants declined to participate. Upon completion of the study measures, participants received a written debriefing statement. All participants received equivalent extra credit points toward their grade in their Introduction to Psychology course.

Results

Seventy-four percent of students reported having thought about how they would feed a baby. Fifty-one percent (n = 139) reported that they planned to breast and formula feed, 29% (n = 79) planned to breastfeed exclusively, 11% (n = 31) were unsure, and 9% (n = 25) planned to formula feed. For those who planned to breastfeed exclusively, the average expected duration was 8.4 months, and 20% planned to supplement with formula within the first 6 months. For those who planned both to breast and bottle-feed, the average duration was 5.5 months. Thirty-seven percent of

Table 1 Factor loadings for items from future concerns about breastfeeding measure.

Factor	Item	Loading
Embarrassment		
	I am concerned that:	
	breastfeeding might be embarrassing	.80
	breastfeeding my baby in public might be embarrassing	.81
	people might judge me if I breastfeed in public	.69
Body impact		
	I am concerned that:	
	breastfeeding might make my breasts saggy	.85
	my body might return to normal too slowly if I breastfeed	.79
	leaking breasts might be embarrassing	.58
Sexuality impact		
	I am concerned that:	
	breastfeeding might get in the way of my sex life	.67
	breastfeeding might make my partner less attracted to me	.75
	breastfeeding might "turn me on" sexually	.80

Principal components analysis with varimax rotation.

Table 2 Factor loadings for items from public breastfeeding as indecent measure.

Item	Loading
I feel comfortable when other women breastfeed in front of me.	−.62
I would be embarrassed if a friend breastfed in front of me.	.77
I would be embarrassed if a professor breastfed in front me.	.71
I would be embarrassed if a family member breastfed in my presence.	.74
Breastfeeding makes women look less attractive.	.63
Pictures of women breastfeeding are obscene.	.60
I would be comfortable breastfeeding in public.	−.59
I think women should breastfeed in public.	−.71

Principal components analysis with varimax rotation.

these women planned to supplement with formula within the first 6 months and 22% planned to do so within the first month. All participants, regardless of their future feeding plans, were instructed to respond to all of the study questions except for the question about the duration of breastfeeding. Therefore, subsequent correlations were computed on data from all participants, with the exception of duration of intended breastfeeding, which was computed only for women who planned both exclusive breastfeeding and a mixed feeding approach.

The *Future concerns about breastfeeding* measure was subjected to a principal component analysis with varimax rotation to confirm the factor structure of the items. Three factors with Eigenvalues greater than one were extracted, which accounted for 65% of the total variance. These three factors represented and were labeled to reflect three different concerns; each subscale had an acceptable level of internal consistency: (a) Embarrassment (Cronbach's alpha = .73); (b) Body Impact (Cronbach's alpha = .71); (c) Sexuality Impact (Cronbach's alpha = .67). See Table 1 for the items for each factor and corresponding loadings.

The *Public breastfeeding as indecent* measure also was subjected to a Principal Component Analysis with varimax rotation. All eight items loaded onto one factor, which accounted for 42% of the variance. All loadings were. 50 or greater, and the Cronbach's alpha of .84 demonstrates a high level of internal consistency. See Table 2 for the items and corresponding loadings.

Given that scores on all of the concerns subscales have a possible range of 3–21, the average participant scored near the midpoint on the Body Impact subscale (M = 12.12; SD = 3.77) and the Embarrassment subscale (M = 13.37; SD = 4.12). Participants reported lower levels of concern on the Sexuality Impact subscale (M = 7.24; SD=3.37). Participants' scores on the Public Breastfeeding as Indecent measure ranged from 8 to 50, but the overall mean score on this measure was near the midpoint (M = 26.85; SD = 8.98).

Pearson correlation coefficients were computed to examine intercorrelations among subscales on the Future Concerns About Breastfeeding measure, Public Breastfeeding as Indecent measure, and scores on the Iowa Infant Feeding Attitudes Scale. Given the large number of correlations computed and the possibility of Type 1 error, an alpha level of .01 was chosen to indicate statistical significance. As hypothesized, women with more positive attitudes toward breastfeeding were less concerned about breastfeeding being embarrassing, r (267) = −.31, p < .001, and impacting their body shape, r (268) = −.25, p < .001. Concerns about the impact of breastfeeding on sexuality were not correlated with attitudes toward breastfeeding. As hypothesized, women who had higher scores on the Public Breastfeeding as Indecent measure also had more negative attitudes toward breastfeeding, r (262) = −.41, p < .001, and higher scores on all of the concern subscales: Embarrassing, r (265) = .62, p < .001; Body Impact, r (265) = .38, p < .001; Sexuality Impact, r (265) = .39, p < .001. In addition, women who viewed public breastfeeding as indecent had planned to breastfeed for a shorter period of time, r (169) = −.34, p <.001, than had women who did not view public breastfeeding as indecent.

Pearson correlation coefficients were computed to test the hypothesis that self-objectification constructs would be associated with concerns about and negative attitudes toward breastfeeding. As seen in Table 3, women who scored higher on the Body Shame subscale of the OBCS were more concerned about breastfeeding being embarrassing, having a negative impact on their body shape, and having a negative impact on their sexual functioning.

Table 3 Correlations among self-objectification measures and breastfeeding measures.

	OBCS-Shame	OBCS-Surveillance	Self-Objectification
Future concerns			
Embarrassment	.17*	.23**	.17*
Impact on body	.23*	.17*	.16
Impact on sexuality	.21*	.11	−.10
Public breastfeeding as indecent	.06	.14	.24*
Attitudes toward breastfeeding	.01	−.04	.05
Attractive with larger breasts due to breastfeeding	.14	.28**	.27**

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

Likewise, scores on the Surveillance subscale of the OBCS were correlated with concerns about the embarrassment of breastfeeding and its impact on body shape. High scores on the SOQ were positively associated with concerns about the embarrassment of breastfeeding and the view that public breastfeeding is indecent. None of the self-objectification constructs were correlated with attitudes toward breastfeeding or planned duration of breastfeeding. As seen in Table 3, women who endorsed the item that larger breasts due to breastfeeding would make them attractive scored higher on the Surveillance subscale of the OBCS and on the Self-objectification Questionnaire.

Discussion

Similar to the findings from other research on college students' breastfeeding intentions and attitudes (Geck, 2001; Wallach & Matlin, 1992), the majority of women in our study (80%) intended to breastfeed during the first few months of infancy. This figure is strikingly similar to the 84% of college educated American women who had ever breastfed in 2005 (http://www.cdc.gov/breastfeeding/data/NIS_data/data_2005.htm). Only 18% of the women from the recent CDC survey breastfed exclusively for the recommended 6 months, and, given our participants' intentions of early supplementation with formula and intended duration of 5 months, it is likely that they too will not persist with breastfeeding for the recommended 6 months. Our young participants' future plans to breastfeed their infants might suggest that they have internalized the popular slogan "breast is best," but many of them have also internalized cultural taboos against public breastfeeding. This finding is consistent with prior research, which has shown students to have positive attitudes toward breastfeeding but feelings of discomfort regarding, or negative attitudes toward, breastfeeding in public (Geck, 2001; O'Keefe et al., 1998). These conflicting attitudes may represent conflicting standards or a double bind for women that may ultimately undermine their breastfeeding behavior and experiences.

Concerns about future breastfeeding may also create or contribute to barriers to successful and fulfilling breastfeeding experiences. The absence of normative data on our measure of concerns about breastfeeding precludes definitive conclusions about absolute levels of concern. However, our results suggest that our participants reported slightly higher levels of concern about breastfeeding as embarrassing and as negatively impacting their body shape than about the impact of breastfeeding on their sexuality. It is possible that women were not comfortable admitting concerns about sexuality. For example, one item on this scale measured concerns about becoming sexually aroused during breastfeeding. The low level of concern our participants reported about breastfeeding impacting their sexuality is not surprising given the extent to which sexual aspects of breastfeeding experiences are denied in popular discourse (Bartlett, 2005) and shunned in the advice literature (Carter, 1996; Saha, 2002).

For the most part, our results provide support for objectification theory. As predicted, self-objectification was not correlated with more global breastfeeding attitudes or planned duration for our participants. However, most self-objectification constructs were associated with aspects of breastfeeding that reflect the sexualization of the breast. The Embarrassment and Body Impact subscales were correlated with all of the self-objectification constructs, and scores on the Sexuality Impact subscale were correlated with the Body Shame subscale of the OBCS. Another finding that supports tenets of objectification theory is that our participants with higher scores on the SOQ were more likely than women with lower scores to agree that larger breasts due to breastfeeding would make them more attractive. Women who scored higher on the SOQ were also more likely than women who had lower scores to view public breastfeeding as indecent. Inconsistent with objectification theory is the absence of a relationship between the two OBCS subscales and attitudes toward breastfeeding in public. One possible interpretation of this pattern of findings is that the SOQ tool is a better and more direct way to measure self-objectification.

Results from the present study replicate those from a similar study of pregnant women's breastfeeding attitudes and concerns (Johnston-Robledo & Fred, 2005). Scores on the Body Shame subscale of the OBCS and the SOQ were strongly associated with concerns that breastfeeding would be embarrassing and have a negative impact on their bodies and sexuality. Scores on the Surveillance subscale were not correlated with any of these concerns. Pregnant women with higher SOQ scores were less comfortable with the idea of breastfeeding in public, but they were more interested in using a breast pump than women who scored lower on this measure. None of the self-objectification constructs were associated with global breastfeeding attitudes or plans.

Similar results from these two very different samples suggest that objectification theory is applicable to the domain of breastfeeding. Future researchers should continue to investigate the extent to which self-objectification may influence women's breastfeeding concerns and experiences. Research linking body image variables with breastfeeding attitudes might further test the applicability of objectification theory to the domain of breastfeeding, but few researchers have examined these potential links. In a study of 12,000 women from the United Kingdom, Barnes, Stein, Smith, and Pollock (1997) found that women with clinically significant weight and body shape concerns were less intent on

initiating breastfeeding or persisting to 4 months than were women without these concerns. Alternative explanations for women's psychosocial and sexual concerns about breastfeeding and negative attitudes toward breastfeeding in public include conflicting cultural beliefs about breasts, erotophobia, modesty norms, and discomfort with corporeality. All of these explanations represent fruitful areas for future research.

Our study is limited by its homogenous sample, and it would be worthwhile to examine self-objectification as it applies to attitudes toward and concerns about breastfeeding among women in lower income groups as well as among women of various ethnic and cultural groups. Continued research on self-objectification as it may contribute to pregnant women's breastfeeding attitudes and new mothers' breastfeeding behavior is also warranted. Findings from our study of non-pregnant college students do not accurately predict or represent pregnant or postpartum women's breastfeeding attitudes. Future researchers could determine if self-objectification constructs would be more relevant to the breastfeeding concerns and attitudes of pregnant and postpartum women or to those of young women who have never been pregnant. These constructs may be especially applicable to the breastfeeding concerns, attitudes, plans, and experiences of adolescent mothers, for whom appearance concerns may be especially salient. Our correlation values, although statistically significant, were fairly small, which minimizes their practical significance. Therefore future researchers should attempt to replicate these findings before definitive statements about the practical implications of this work can be made. The design of the present study is also limited in that it does not allow for conclusive statements about the relationships among study variables that extend beyond bivariate correlations. Larger samples would allow for the testing of self-objectification as a construct within a broader model of women's breastfeeding concerns and intentions.

The U.S. Department of Health and Human Services has identified increased breastfeeding rates and duration as a goal for the year 2010 (U.S. Department of Health and Human Services, 2001). The question as to how to increase breastfeeding rates remains. One approach currently taken by the United States government is a risk-based media campaign that likens choosing not to breastfeed to various dangerous activities during pregnancy such as riding a mechanical bull or roller-skating. This campaign has been criticized for pressuring women and for providing unsubstantiated claims about the dangers of formula feeding (Petersen, 2004). We do not believe that women should be made to feel guilty for not breastfeeding. However, women's initial infant feeding decisions and freedom to have positive fulfilling breastfeeding experiences may both be hindered by shame or self-consciousness that arises from or is reinforced by restrictive and sexist cultural norms. Feminist analyses of both conflicting cultural beliefs about breasts as well as women's experiences of breastfeeding may help to change cultural norms about breastfeeding and to inform efforts to provide the professional, social, and structural support necessary for women to initiate and maintain successful breastfeeding relationships with their infants.

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