

COUPLES

A New Baby in the Bedroom: Frequency and Severity of Postpartum Sexual Concerns and Their Associations With Relationship Satisfaction in New Parent Couples



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ABSTRACT

Introduction: New parents are faced with many novel stressors, including possible changes to their sexual relationships. Although postpartum sexual concerns appear to be pervasive in new parents, little is known about the severity of these concerns or how they relate to new mothers' and fathers' relationship satisfaction.

Aim: To describe the frequency and severity of postpartum sexual concerns and examine associations between frequency and severity of postpartum sexual concerns and relationship satisfaction in new-parent couples.

Methods: Participants were 239 new-parent couples of a healthy infant 3 to 12 months old. Both members of the parenting couple completed an online survey within 1 month of each other.

Main Outcome Measures: Frequency and severity of postpartum sexual concerns were assessed using a 20-item Likert-type questionnaire adapted from a previously validated measurement. Relationship satisfaction was assessed with the Couples Satisfaction Index.

Results: A wide range of postpartum sexuality concerns was highly prevalent and moderately distressing in new mothers and fathers alike. New fathers' greater severity of postpartum sexual concerns was associated with their own and new mothers' decreased relationship satisfaction, whereas new mothers' greater severity of postpartum sexual concerns was associated only with lower relationship satisfaction in new fathers. In addition, new mothers' greater frequency of postpartum sexual concerns was associated with their own and new fathers' lower relationship satisfaction, whereas new fathers' frequency of postpartum sexual concerns was unrelated to the couples' relationship satisfaction.

Conclusion: Postpartum sexual concerns are pervasive and moderately distressing in new parents. The increased frequency and severity of these concerns were associated with decreased relationship well-being in both members of the couple. New mothers might need more assistance adjusting to the number of sexual concerns that they are experiencing, whereas new fathers might need more help adjusting to distress related to sexual issues.

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Key Words: Postpartum Sexuality; Parenthood; Relationship Satisfaction; Postpartum Sexual Health; Couples

INTRODUCTION

During the first year after childbirth, new parents are faced with many personal and interpersonal changes, including changes to their sexual relationship.^{1,2} Specifically, most new parents experience sexual concerns (ie, questions or worries related to their sexuality³) unique to the postpartum period. For

example, new parents have reported concerns about when to reinitiate sexual intercourse after childbirth, pain during intercourse, the impact of body image concerns on sexual activity, and discrepancies in sexual desire between members of the couple (eg, ^{3–8}). To our knowledge, only one study has directly assessed the frequency of postpartum sexual concerns.³ The investigators found that, in a sample of more than 200 new parents, as many as 89% of new mothers and 82% of new fathers endorsed at least one postpartum sexual concern, and approximately half of all new parents experienced multiple postpartum sexual concerns during the first year after childbirth.³ Women who had cesarean deliveries reported a greater frequency of concerns than those who had a vaginal delivery, whereas other delivery-related factors (eg, instrumental deliveries, episiotomies or vaginal tearing) and breastfeeding were unrelated to the number of concerns.³

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The most prevalent sexual concerns appeared to be similar in new mothers and fathers and included worries about when to safely resume intercourse, when to initiate the use of birth control, the impact of physical recovery from childbirth on sexuality, changes in mothers' body image after childbirth, and discrepancies in sexual desire in which new mothers reported lower desire than their partners.^{3,9} Despite the high prevalence of postpartum sexual concerns, with the exception of time to resumption of intercourse, these issues are infrequently discussed with health care providers, possibly because of physicians' limited knowledge of or comfort with postpartum sexual changes and concerns.^{5,10,11}

The available research on the frequency and content of postpartum sexual concerns in new parents is limited by its reliance on data collected from only one member of the parenting couple (eg, ¹²), thus hindering knowledge on how postpartum sexual concerns can vary and affect both members of the couple. Previous research has shown sex differences in the struggles encountered by new parents such that new mothers tend to experience increased stress, concerns about changes in body shape, and doubts about parenting competence, whereas new fathers experience increased concerns regarding finances and decreases in their partner's sexual interest.^{2,9,13–16} These data suggest that postpartum sexual concerns also can vary within mixed-sex parenting couples. If this is the case, then sex-specific interventions tailored to new mothers and fathers could be more effective in curbing postpartum sexual concerns and any negative effects that such concerns might have on new parents' relationships. In addition, new parents might perceive some postpartum sexual concerns as trivial or transient, whereas others might be associated with substantial distress and diminished well-being. In addition, some new parents might endorse a great number of concerns that they are not that bothered by, whereas others might have only a few concerns that are quite distressing. The present study aimed to assess the frequency and severity of postpartum sexual concerns in both members of the parenting couple.

The postpartum period is associated with unique declines in a couple's relationship satisfaction, which is defined as the subjective global evaluation of the positive and negative aspects of one's romantic relationship.^{2,17–23} Parents show significantly steeper declines in relationship satisfaction compared with non-parents, even after controlling for confounding variables such as relationship length,^{20,24} and these deteriorations appear to persist long term.¹⁸ Given that sexual and relationship satisfaction are interdependent,²⁵ a greater number and severity of postpartum sexual concerns can negatively affect the relationship satisfaction of new parents. Indeed, of the limited available research, decreases in sexual frequency, desire, and satisfaction postpartum have consistently been linked with relationship dissatisfaction.^{12,17} There are potential consequences for the new child: marital conflict has been found to negatively affect the parent-child relationship and the infant's socioemotional health

and subsequent development.^{26,27} Therefore, it is important to identify whether sexual concerns might be a risk factor for decreased relationship satisfaction in the postpartum period. This knowledge could be used to develop interventions targeted at lessening postpartum sexual concerns. An important aspect of sexual health care is proactively targeting sexual health concerns²⁸; however, new parents are often reluctant to seek help for sexual problems.²² An improved understanding of postpartum sexual concerns and their associations with relationship well-being could encourage health care providers to address these issues during a highly vulnerable transition in couples' lives.

Studies examining sexuality and relationship satisfaction in postpartum couples are typically conducted at the individual level.²² However, an individual's relationship satisfaction is likely to be affected by the perceptions and experiences of each member of the parenting couple.²² As a result, individuals' postpartum sexual concerns can affect their own and their partners' relationship satisfaction. Indeed, dyadic research with community and clinical samples has demonstrated that relationship satisfaction is inherently interdependent, such that the thoughts, feelings, and behaviors of the individuals within a couple influence their own and their partner's relationship satisfaction.^{29–32}

AIMS

In an online sample of new-parent couples, the aims of this study were to (i) describe the frequency and severity of postpartum sexual concerns and (ii) examine the associations between frequency and severity of postpartum sexual concerns and relationship satisfaction. Because all couples in our sample were in mixed-sex relationships, we refer to participants as new mothers and fathers. We hypothesized that new mothers' and fathers' greater frequency and severity of postpartum sexual concerns would be associated with their own and their partner's lower relationship satisfaction. Findings from this study will contribute to an improved understanding of postpartum sexual concerns and their associations with relationship satisfaction to provide clinicians with more nuanced information relevant to effectively addressing these issues in new parent couples.

METHODS

Participants

A convenience sample of couples was recruited across North America from online sources (Kijiji, Craigslist, Reddit, scienceofrelationships.com) from September 2014 to May 2015 as part of a larger, cross-sectional online study on postpartum sexuality and relationships. Other data from the larger study have been published previously.³³ Potential participants were presented with a brief eligibility screener. Inclusion criteria were (i) a couple currently engaged in an intimate relationship with each other, (ii) first-time parents to a healthy singleton child born at 37 to 42 weeks of gestation and 3 to 12 months old at the time

Table 1. Descriptive statistics (N = 239 unless otherwise noted)

	Mothers		Fathers	
	Mean (range) or n	SD or %	Mean (range) or n	SD or %
Age (y)	27.16 (20–40)	3.26	29.00 (20–45)	3.83
Cultural identification				
Canadian	37	15.6%	37 (15.6%)	15.6%
American	192	81.0%	192	81.0%
European	3	1.3%	4	1.7%
Other*	5	2.1%	4	1.6%
Annual household income				
≤\$19,999–\$39,999	13	5.5%	—	
\$40,000–\$59,999	45	19.0%	—	
\$60,000–\$79,000	93	39.3%	—	
\$80,000–\$99,999	45	19.0%	—	
≥\$100,000	41	17.3%	—	
Current relationship status				
Dating	17	7.2%	—	
Common-law	7	3.0%	—	
Married	213	89.9%	—	
Relationship duration (y)	3.90 (14.33)	2.31	—	
Infant age (mo)	6.79 (3–12)	2.43		
Breastfeeding (n = 207)				
Yes	141	59.5%	—	
No	64	13.5%	—	
Delivery method (n = 207)				
Vaginal delivery	137	57.8%	—	
Cesarean section	68	28.7%	—	

*Included African, Asian, Australian, Middle Eastern, Latin American or South American, and Caribbean.

of participation, and (iii) the mother being 18 to 45 years of age and her partner being older than 18 years. Fifty-one mothers and 16 fathers did not meet the eligibility criteria and were excluded from participating. A total of 277 couples completed the survey; however, 28 were excluded from analyses owing to missing data representing more than 10% from at least one main study measurement. Four couples were excluded owing to discrepant reporting of their infant's age (>1-month difference within a couple). An additional four couples were excluded because at least one member of the couple reported sociodemographic information that violated the selection criteria (ie, inconsistent responding across identical items). Two same-sex couples were excluded because a test of distinguishability³⁴ showed that the couples were distinguishable by participant sex ($P < .001$). The final sample included 239 couples. Demographic information is presented in [Table 1](#).

Measurements

Sample Characteristics

Both members of the couple reported their age, country of residence, biological sex, and cultural background. New mothers also reported couples' annual household income, current relationship status, duration of relationship, current age of their

child, mode of delivery, and whether or not they were breastfeeding.

Postpartum Sexual Concerns

Severity and frequency of postpartum sexual concerns were assessed using an adapted measurement of previously identified postpartum sexual concerns.³ The authors of the original questionnaire verified its validity with the use of informal focus groups and formal pretesting by mailed surveys. The original questionnaire assessed the presence or absence of concerns, whereas our adapted version also assessed the severity of sexual concerns. Specifically, participants rated each item on a numerical rating scale ranging from 1 (not at all concerned) to 7 (extremely concerned). Severity of postpartum sexual concerns was assessed by summing responses from all items, and frequency of postpartum sexual concerns was quantified by counting the number of items to which a participant provided a response with a score higher than 1 (ie, indicative of the presence of some degree of postpartum sexual concern). Our adapted version included one additional item (concerns regarding the impact of changes in your partner's body image on sexual activity after childbirth) to mirror the item about concerns regarding one's own body image. The 20 items included in the present postpartum sexual concerns questionnaire are presented in [Table 2](#)

Table 2. Frequency and severity of sexual concerns among new mothers and fathers (N = 239)

Concern	Mothers			Fathers		
	Frequency rank	Frequency, n (%)	Severity, Mean (SD)	Frequency rank	Frequency n (%)	Severity, Mean (SD)
Are you concerned about your frequency of intercourse after childbirth?	1	229 (96)	4.64 (1.34)	2	219 (92)	4.26 (1.59)
Are you concerned about changes in your own body image and its impact on sexual activity after childbirth?	1	229 (96)	4.49 (1.48)	16	137 (57)	2.99 (2.05)
Are you concerned about the impact of childrearing duties on time for sexual activity?	2	222 (93)	4.23 (1.52)	6	211 (88)	4.32 (1.76)
Are you concerned about the impact of sleep deprivation on sexual interest?	3	221 (93)	4.33 (1.70)	5	212 (89)	4.17 (1.74)
Are you concerned about the impact of physical recovery from delivery on intercourse?	4	220 (92)	4.25 (1.57)	7	209 (87)	4.03 (1.69)
Are you concerned about the impact of breastfeeding on breasts?	5	219 (92)	4.55 (1.73)	4	213 (89)	4.03 (1.70)
Are you concerned about a mismatch in sexual desire: your partner has more sexual desire than you?	6	218 (91)	4.45 (1.82)	16	137 (57)	3.07 (2.10)
Are you concerned about mood swings (not postpartum depression) and their impact on sexual activity after childbirth?	7	213 (89)	4.09 (1.74)	1	220 (92)	4.19 (1.58)
Are you concerned about how soon you resumed sexual intercourse after childbirth?	8	207 (87)	4.48 (1.99)	5	212 (89)	4.69 (1.91)
Are you concerned about how soon after childbirth birth control is needed?	9	201 (84)	4.67 (2.13)	7	209 (87)	4.21 (1.85)
Are you concerned about changes in your sexual self-perception (ie, how you see yourself as a sexual being) now that you are a parent?	10	189 (79)	3.74 (2.00)	14	160 (67)	3.31 (2.00)
Are you concerned about the impact of birth control on breastfeeding (amount or quality)?	11	186 (78)	3.92 (1.99)	12	170 (71)	3.51 (2.00)
Are you concerned about the impact of breastfeeding on vaginal dryness?	12	182 (76)	3.65 (1.97)	9	193 (81)	3.58 (1.77)
Are you concerned about how to get or show affection when intercourse is difficult or impossible?	13	179 (75)	3.60 (1.93)	10	181 (76)	3.53 (1.998)
Are you concerned about differences with your partner on childrearing approaches and its impact on your sexual interest?	14	176 (74)	3.48 (1.93)	13	167 (70)	3.41 (2.01)
Are you concerned about returning to work (or not) and its impact on sexual activity after childbirth?	15	166 (70)	3.54 (2.07)	15	157 (66)	3.17 (1.96)
Are you concerned about postpartum depression and its impact on sexual activity after childbirth?	16	161 (67)	3.35 (2.07)	11	184 (77)	3.63 (1.98)
Are you concerned about changes in your sexual perception of your spouse or partner (ie, how you see your partner as a sexual being) now that he or she is a parent?	17	153 (64)	3.16 (2.07)	8	198 (83)	3.77 (1.83)
Are you concerned about a mismatch in sexual desire: you have more sexual desire than your partner?	18	142 (59)	2.99 (2.05)	3	217 (91)	4.43 (1.73)
Are you concerned about changes in your partner's own body image and its impact on sexual activity after childbirth?	19	134 (56)	3.05 (2.10)	4	213 (89)	3.95 (1.73)

Table 3. Correlations among severity of sexual concerns, frequency of sexual concerns, and relationship satisfaction among new mothers and fathers*

	Mother's severity of sexual concerns	Father's severity of sexual concerns	Mother's frequency of sexual concerns	Father's frequency of sexual concerns	Mother's relationship satisfaction
Father's severity of sexual concerns	0.75	—			
Mother's frequency of sexual concerns	0.87	0.75	—		
Father's frequency of sexual concerns	0.68	0.87	0.78	—	
Mother's relationship satisfaction	−0.33	−0.37	−0.47	−0.35	—
Father's relationship satisfaction	−0.34	−0.34	−0.49	−0.40	0.81

*All correlations significant at the 0.01 level (two-tailed).

with means and SDs for frequency and severity of concerns. Cronbach α values were 0.92 for new mothers and 0.93 for new fathers in this sample.

Relationship Satisfaction

The well-validated Couples Satisfaction Index (CSI)³⁵ was used to assess relationship satisfaction, and it assesses positive and negative indicators of relationship quality and adjustment. The CSI consists of 32 items, which are rated on a six-point scale (eg, “In general, how often do you think that things between you and your partner are going well?” with responses ranging from 0 [never] to 5 [all the time]) or a seven-point scale (eg, “Please indicate the degree of happiness, all things considered, of your relationship” with response options ranging from 0 [extremely unhappy] to 6 [perfect]), depending on the particular item. It should be noted that the CSI does not assess sexual satisfaction or include any items that directly reference the sexual relationship. Responses from all items can be summed to generate a score for overall relationship satisfaction, with higher scores indicating greater satisfaction. Cronbach α value was 0.97 for new mothers and new fathers in this sample.

Procedure

Eligible participants provided informed consent before completing an online survey assessing demographic characteristics, postpartum sexual concerns, and relationship satisfaction (among other measurements not pertinent to the present study). At the end of the survey, they provided the E-mail address for the other member of the couple. Then, the partner was E-mailed a unique questionnaire link, which included an embedded couple identifier that allowed the data to be linked once the two members completed the survey. Both members of the couple were required to complete the survey within 4 weeks of each other. At the end of the study, participants were provided with online sexuality and relationship resources relevant to the postpartum period and a \$15 online gift certificate. The study received ethical approval from our institution's research ethics board.

Data Analyses

If data were missing for no more than 10% of a particular measurement, then they were replaced by the individual's mean score on that particular scale.³⁶ The first aim of the present study was to describe the frequency and severity of postpartum sexual concerns. For the second aim, the actor-partner interdependence model was used to guide analyses examining the associations between new mothers' and new fathers' severity and frequency of postpartum sexual concerns and their own (ie, actor effects) and their partner's (ie, partner effects) relationship satisfaction. Data were analyzed with multilevel modeling using mixed models in SPSS 20.0 (IBM Corp, Armonk, NY, USA), where partners were nested within couples.³⁴ Effects were fixed and predictor variables were grand-mean centered before conducting the analyses.³⁴ Separate models were tested for the associations between new mothers' and fathers' frequency and severity of postpartum sexual concerns and relationship satisfaction.

RESULTS

Descriptive Characteristics and Correlations

Correlations between new mothers' and fathers' severity and frequency of postpartum sexual concerns and relationship satisfaction are presented in Table 3. All measurements of severity and frequency of postpartum sexual concerns were positively correlated within and between new mothers and fathers, whereas measurements of severity and frequency of postpartum sexual concerns were negatively correlated with measurements of relationship satisfaction. Intra-class correlations (ICCs) represent the proportion of variation at the between-couple level relative to the within-couple level. In the present sample, ICCs were 0.78 for frequency of sexual concerns, 0.74 for severity of sexual concerns, and 0.80 for relationship satisfaction. The ICCs indicate that couples' data were non-independent and therefore APIM analyses were warranted. None of the continuous sociodemographic variables (eg, mothers' and fathers' age, infants' age, length of relationship, income) correlated with the primary study variables

Table 4. Actor-partner interdependence models, with relationship satisfaction as dependent variable and severity and frequency of postpartum sexual concerns as independent variables

	Relationship satisfaction				
	b	Standard error	df	t	P value
Severity of sexual concerns					
Actor effects					
Mother	−0.15	0.11	234	−1.41	.16
Father	−0.22*	0.10*	234*	−2.15*	.03*
Partner effects					
Mother	−0.30*	0.10*	234*	−2.89*	.004*
Father	−0.21*	0.10*	234*	−2.04*	.04*
Frequency of sexual concerns					
Actor effects					
Mother	−3.40*	0.62*	233*	−5.48*	<.001*
Father	−0.24	0.54	233	−0.45	.66
Partner effects					
Mother	0.32	0.56	233	0.57	.57
Father	−2.89*	0.60*	233*	−4.85*	<.001*

*Significant effects.

at higher than 0.30 and therefore were not included as covariates in analyses.³⁷ A univariate analysis of variance ($F_{1,205} = 33.44$, $P \leq .001$) showed that fathers' relationship satisfaction was greater in couples in which mothers were breastfeeding (mean = 121.94, standard error [SE] = 2.13) compared with not breastfeeding (mean = 99.88, SE = 3.17). No other categorical sample characteristics (eg, delivery method, current relationship status) differed across the main study variables. The analyses for relationship satisfaction were run with breastfeeding as a covariate and all observed effects remained significant. Therefore, we report the most parsimonious models.

Frequency and Severity of Postpartum Sexual Concerns

The rankings, means, and SDs for the frequency and severity of mothers' and fathers' postpartum sexual concerns are presented in Table 2. Univariate analyses of variance showed no differences between the frequency of sexual concerns ($F_{1,475} = 0.57$, $P = .81$) reported by new mothers (mean = 16.10, SE = 0.29) and fathers (mean = 16.00, SE = 0.29) or in the severity of the sexual concerns ($F_{1,476} = 1.26$, $P = .26$) of new mothers (mean = 78.70, SE = 1.55) and fathers (mean = 76.24, SE = 1.54). Fifty nine percent of mothers and 59% of fathers endorsed 16 to 20 sexual concerns, 30% of mothers and 30% of fathers endorsed 11 to 15 concerns, and only 11% of mothers and 11% of fathers reported no more than 10 concerns.

Although overall the frequency and severity of sexual concerns did not differ between mothers and fathers, they did appear to differ in the frequency with which they endorsed specific postpartum sexual concerns, as indicated by the discrepant rankings presented in Table 2. Specifically, the top concerns for mothers (in order of frequency) were (i) concerns about frequency of

intercourse after childbirth and concerns about changes in own body image and its impact on sexual activity after childbirth (tied for first), (ii) concerns about the impact of childrearing duties on time for sexual activity, (iii) concerns about the impact of sleep deprivation on sexual interest, (iv) concerns about the impact of physical recovery from delivery on intercourse, and (v) concerns about the impact of breastfeeding on breasts. In contrast, the top concerns for fathers were (i) concerns about mood swings (not postpartum depression) and their impact on sexual activity after childbirth, (ii) concerns about the frequency of intercourse after childbirth, (iii) concerns about a mismatch in sexual desire: you (father) have more sexual desire than your partner (mother), (iv) concerns about changes in your partner's (mother's) body image and its impact on sexual activity after childbirth and concerns about the impact of breastfeeding on breasts (tied), and (v) concerns about the impact of sleep deprivation on sexual interest and concerns about how soon to resume sexual intercourse after childbirth (tied).

Associations Between New-Parent Couples' Postpartum Sexual Concerns and Relationship Satisfaction

Relationship satisfaction ($F_{1,477} = 1.53$, $P = .22$) did not differ significantly between new mothers (mean = 108.61, SE = 1.78) and fathers (mean = 111.61, SE = 1.78). As presented in Table 4 and partly in line with our predictions, when mothers endorsed a greater severity of postpartum sexual concerns, fathers reported lower relationship satisfaction, although the mothers' own relationship satisfaction was unrelated to severity of concerns. When fathers reported a greater severity of postpartum sexual concerns, fathers and mothers reported lower relationship satisfaction. In addition, when mothers indicated an increased frequency of postpartum sexual concerns, their own

and the fathers' relationship satisfaction decreased. Fathers' increased frequency of sexual concerns was not associated with their own or with mothers' relationship satisfaction.

DISCUSSION

The purpose of this study was to describe the severity and frequency of postpartum sexual concerns and their associations with relationship satisfaction in a sample of first-time parent couples. In line with prior literature,³ findings demonstrated that postpartum sexual concerns are highly prevalent. More than half the new mothers and new fathers in our sample endorsed at least 16 of the 20 postpartum sexual concerns that were assessed, whereas nearly 90% endorsed more than 10 concerns. Further, each postpartum sexual concern was associated with a moderate degree of severity in new mothers and fathers, suggesting that new parents are experiencing distress associated with the changes in their sexuality during the postpartum period. Some of the content of the most prevalent sexual concerns was similar between new mothers and fathers. Both parents endorsed concerns about the frequency of sexual intercourse, when to resume intercourse after childbirth, and the impact changes in new mothers' body image had on sexual activity in their top five. Concerns on the impact of sleep deprivation, breastfeeding, and physical recovery from childbirth also were highly prevalent in new mothers and fathers. The range of concerns endorsed by participants highlight that biological, psychological, relational, and contextual factors are at play, which is consistent with theoretical models of female and male sexual responses and sexual difficulties more generally.^{38–40} The accumulation of concerns, especially those that persist over a longer term, could adversely affect the sexual functioning (eg, desire, arousal, orgasm, and pain) and satisfaction of couples. Moreover, some concerns might become less distressing or resolve over time. It remains unclear how sexual concerns are related to couples' actual experience of sex (ie, sexual behaviors). Longitudinal studies are needed to investigate these possibilities.

The top concerns identified in the present sample are fairly consistent with the most prevalent concerns reported by Pastore et al.³ However, Pastore et al³ reported that only 17% of new mothers and 9% of new fathers experienced at least 14 of the 19 concerns that were assessed, which is a much lower frequency than was observed in the present study. In addition, Pastore et al³ found that new mothers' frequency of postpartum sexual concerns were greater when they had a cesarean section rather than a vaginal delivery, yet breastfeeding and other delivery characteristics were unrelated to frequency of postpartum sexual concerns. In the present study, mode of delivery and breastfeeding were unrelated to the frequency and severity of postpartum sexual concerns, further contributing to the mixed evidence regarding the positive, negative, or limited impact of these factors on the sexual relationship.^{41–43} Differences in the frequency of postpartum sexual concerns and their association with delivery

method between the study by Pastore et al³ and the present study could be attributable to sample inconsistencies and methodologic differences. Pastore et al³ recruited women who had given birth at a single American hospital, whereas participants in the present study lived in various locations throughout North America. It also is possible that asking participants to indicate the degree of concern they were experiencing (rather than yes-or-no response options) resulted in a greater endorsement of concerns. The present findings extend those of Pastore et al³ by demonstrating that new parents experience a moderate degree of distress associated with a wide range of issues related to postpartum sexuality. These findings suggest a need for education and interventions aimed at minimizing postpartum sexual concerns. Although there was a greater degree of variation in the frequency and severity of postpartum sexual concerns between couples relative to within couples (as indicated by ICCs of 0.74 and 0.78), there was still a good deal of variability within members of a new-parent couple. Thus, education and interventions should take into account possible individual variability with regard to which concerns are more distressing than others and that concerns can differ between members of the new-parent couple.

Although new mothers and fathers reported a similar frequency and severity of sexual concerns, the way in which these factors were linked to relationship satisfaction differed. Although new fathers' greater severity of postpartum sexual concerns was associated with their own and new mothers' lower relationship satisfaction, new mothers' greater severity of postpartum sexual concerns was associated with the lower relationship satisfaction of new fathers only. However, new mothers' greater frequency of sexual concerns was associated with their own and new fathers' lower relationship satisfaction, whereas new fathers' frequency of postpartum sexual concerns was unrelated to their own or the mothers' relationship satisfaction. Given that new mothers and fathers have differential expectations regarding their roles and experiences postpartum, and that violated expectations for the transition to parenthood have been linked to declines in relationship satisfaction,^{44,45} parental expectations might account for these differences. For example, fathers might feel less prepared for the distress associated with sexual concerns, whereas new mothers might be expecting changes to their sexual relationship but might become overwhelmed by the sheer number of sexual issues encountered. In these two cases, violated expectations could affect their relationship satisfaction through a "spillover effect" (ie, a spillover of stressors in other aspects of life that negatively affects the relationship quality).⁴⁶ These patterns suggest that new parents' relationship satisfaction could benefit from tailored interventions to address the frequency and severity of sexual concerns. New mothers might need more assistance adjusting to the number of sexual concerns that they are experiencing, whereas new fathers might need more help adjusting to any distress or worry that they are experiencing in relation to sexual issues.

New parents have to balance a host of novel stressors and new responsibilities that can tax their emotional and physical

resources. Having a larger number of postpartum sexual concerns and feeling distressed by them could contribute to feelings of being overloaded and isolated and could interfere with dyadic coping (ie, working together as a couple) during this time. Prior studies have shown that dyadic coping enhances relationship quality for both members of the couple over a 2-year period⁴⁷ and during stressful periods such as coping with a chronic illness.⁴⁸ More distress over postpartum sexual concerns also could contribute to a lack of intimacy during a period when there are already numerous barriers (eg, privacy, fatigue) to finding time for intimate connection. Decreased intimacy has been linked to lower relationship satisfaction in community couples⁴⁹ and in couples faced with sexual difficulties.⁵⁰ Postpartum sexual concerns also are likely to affect the overall evaluation of the sexual relationship, which in turn can relate to overall relationship satisfaction, especially given prior findings of the interdependence between sexual and relationship satisfaction.²⁵ Enhancing couples' communication about postpartum sexual concerns can help to mitigate negative consequences to the relationship. Communication about sex can be a difficult topic in couples⁵¹; however, greater sexual communication is associated with improved relationship satisfaction for both members of the couple.⁵² Future research should examine the associations among postpartum sexual concerns, sexual communication, sexual satisfaction, and relationship well-being.

Given that the quality of parents' relationship after the birth of a child has an important impact on early^{53,54} and later^{26,55} child development, an improved understanding of the factors related to relationship quality in new parents has important implications for the parenting couple and their children. Previous studies have established the association between non-sexual factors, such as the childhood environment of new parents, duration of relationship before the birth of a child, financial circumstances, perceived chaotic lifestyle, marital disappointment, and negativity within the parenting couple,^{18,56} and postpartum relationship satisfaction. Further, examining predictors of postpartum relationship satisfaction from a dyadic perspective (ie, including both members of the couple) is rare. Rosen et al³³ demonstrated that new mothers' and fathers' increased empathy toward their partner was associated with their own and their partners' greater relationship well-being in the first year postpartum. The present study indicates that the sexual concerns of both members of new-parent couples are an additional relevant factor.

Educating health care providers on the frequency, severity, and content of postpartum sexual concerns and providing effective strategies to discuss the same could increase their willingness and confidence in discussing these concerns with new parents, particularly because feelings of discomfort and lack of training in dealing with sexuality issues are key reasons that health care providers avoid discussing sexuality.^{57–59} Further, given that some of the content of the most prevalent concerns varied between new mothers and fathers and that the frequency and

severity of postpartum sexual concerns were found to uniquely influence new mothers' and fathers' relationship satisfaction, researchers should focus on the development and testing of a couples-based approach for addressing postpartum sexual concerns in new parents. Although there is some evidence that sexual health education (eg, regarding contraception) can improve knowledge, attitudes, and self-efficacy in women after childbirth,⁶⁰ no studies to our knowledge have examined the efficacy of interventions focused specifically on the sexual relationship of new parents.

The findings of the present study should be considered in light of the following limitations. The present study used a cross-sectional design and causal conclusions cannot be drawn. Future research might use a longitudinal design to explore the temporal associations between postpartum sexual concerns and relationship well-being. Data were collected online and by self-report and therefore are less likely to include new parents with limited access to computers or who are uncomfortable or disinterested in sharing their postpartum sexual and relationship experiences. Further, the possible impact of postpartum depression on outcome measurements was not assessed. Given that postpartum depression is associated with diminished relationship⁶¹ and sexual satisfaction,⁶² those experiencing heightened depressive symptoms or negative affect might experience more frequent and severe postpartum sexual concerns and diminished relationship well-being. The reverse direction of this association also is possible. In addition, the present study included only participants engaged in intimate, mixed-sex relationships and might not generalize to those in same-sex or other types of relationships. The present study also included only first-time parents of a healthy, singleton child who was born at term. In consequence, findings might not generalize to parents of multiple children, parents of children with health complications, or parents of preterm children who are faced with a host of additional stressors of which sexual concerns might be a lower priority. The health status of parents themselves, including the presence of sexual dysfunction, can affect the variables under investigation. Despite these limitations, it is notable that the large sample of dyadic data allowed for the assessment of actor and partner effects, such that the associations between postpartum sexual concerns and one's own and one's partner's sexual satisfaction could be explored. This is an important addition to the available literature on postpartum sexuality, which has tended to neglect the experiences of new fathers or to analyze data separately for new mothers and fathers. The present study also established the importance of assessing the severity and frequency of postpartum sexual concerns, given that each was found to have unique associations with new parents' relationship satisfaction.

CONCLUSION

Findings from the present study highlight that numerous postpartum sexual concerns are highly prevalent and are

associated with a moderate degree of concern in new mothers and fathers. Although some prior research suggests that the transition to parenthood is more stressful for new mothers than for new fathers,^{55,63} the present results suggest that the frequency and severity of postpartum sexual concerns were associated with relationship well-being for both members of the couple. Prenatal and postnatal appointments are an excellent opportunity to discuss new or existing sexual concerns with new parents. Indeed, many couples want to receive more information about postpartum sexuality.²³ Health care providers should be encouraged to initiate discussions about postpartum sexual concerns with new parents, and specifically to what degree couples are distressed by them, and within the greater context of their relationships. Findings from this study highlight that interventions aimed at curbing postpartum sexual concerns can have an additional positive impact on the more general relational well-being of new parents. Couples therapy has been found to be effective in improving sexual functioning and relationship satisfaction in women with sexual dysfunction,⁶⁴ suggesting that such strategies might prove helpful in managing postpartum sexual concerns and their impact on relationship well-being.

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