The Journal of Sex Research

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/hjsr20

Associations between New Mothers' Partner-Oriented Sexual Values and Sexual Distress in the Transition to Parenthood

Jackie S. Huberman, David B. Allsop & Natalie O. Rosen

To cite this article: Jackie S. Huberman, David B. Allsop & Natalie O. Rosen (2022): Associations between New Mothers' Partner-Oriented Sexual Values and Sexual Distress in the Transition to Parenthood, The Journal of Sex Research, DOI: 10.1080/00224499.2022.2089969

To link to this article: https://doi.org/10.1080/00224499.2022.2089969

Published online: 22 Jun 2022.

THE JOURNAL OF SEX RESEARCH
https://doi.org/10.1080/00224499.2022.2089969

Taylor & Francis
Taylor & Francis Group

Associations between New Mothers' Partner-Oriented Sexual Values and Sexual Distress in the Transition to Parenthood

Jackie S. Huberman [a], David B. Allsop [a], and Natalie O. Rosen [a,b]

[a]Department of Psychology and Neuroscience, Dalhousie University; [b]Department of Obstetrics and Gynecology, Dalhousie University

ABSTRACT

Women commonly experience heightened sexual distress in pregnancy and postpartum, and there is limited knowledge of protective factors. Women report declines in the importance of sexuality during this time, suggesting that valuing sexuality could be a relevant individual difference factor. It may be particularly protective for women to feel successful in living in line with their sexual values. In a longitudinal study, we examined associations between the extent to which women valued their role as a sexual partner, and their success living in line with this partner-oriented sexual value, with their sexual distress. Women (N = 367) reported the importance of their role as a sexual partner, success living according to this value, and sexual distress during pregnancy (18–20 weeks) and at 3, 6, 12 and 24-months postpartum. More strongly valuing one's role as a sexual partner was associated with more sexual distress, both between-person (i.e., across women) and within-person (i.e., variation within women over time). Above and beyond these effects, greater success at living in line with one's partner-oriented sexual value was associated with less sexual distress. Finding ways to live in line with one's sexual values may protect against sexual distress for new mothers in the transition to parenthood.

Introduction

During pregnancy and postpartum, new mothers face many biological, psychological, and social adjustments, and sexual problems are common as a result (McBride & Kwee, 2017). Over a third of sexually active pregnant women report significant sexual problems (e.g., difficulties with sexual desire, arousal, orgasm, genito-pelvic pain) that are associated with lower sexual and relationship satisfaction (Vannier & Rosen, 2017). Moreover, sexual desire and frequency decline on average from pregnancy to 12 months postpartum, and new mothers report more notable changes to sexuality than their partners (Rosen et al., 2021). Importantly, not all pregnant women experience negative emotions about sexuality, or *sexual distress*, even when they encounter sexual problems, and some have elevated sexual distress without significant sexual problems (Vannier & Rosen, 2017). Approximately 40% of pregnant women report clinical levels of sexual distress (Vannier & Rosen, 2017), which often increases postpartum (Rosen et al., 2021). Variability in new mothers' levels of sexual distress during the transition to parenthood suggests the possibility of protective factors – such as the value they place on their role as a sexual partner – that may inform who experiences more or less sexual distress.

There is some evidence that the importance of sexuality declines in women throughout pregnancy (Trutnovsky et al., 2006), but it is unclear how variation in the importance of sexuality may relate to key sexual outcomes such as distress. Given that connecting more with one's values, and taking more action in line with values, are associated with less psychological distress more broadly (Grégoire et al., 2020), we examined whether women's sexual values, and success living in line with their sexual values, were associated with their sexual distress in a longitudinal study across the transition to parenthood. We focused on a partner-oriented sexual value – being the kind of sexual partner you want to be for your significant other – and success living in line with this partner-oriented sexual value, because relational factors tend to be motivating (Muise et al., 2017; Polk & Schoendorff, 2014) and new mothers' sexual difficulties commonly occur within relationships. We use the terms "sexual value" and "sexual success," respectively, throughout this paper for ease of readability. Results of this work could identify novel treatment targets related to partner-oriented sexual values and valued actions that may promote women's sexual wellbeing and support their relationships during a vulnerable time.

Sexual Distress in the Transition to Parenthood

Sexual distress reflects negative emotions about one's sex life or sexuality, such as feelings of guilt, embarrassment, stress, anger, or inadequacy (DeRogatis et al., 2008). Greater sexual distress is associated with lower sexual satisfaction and poorer sexual function, yet these constructs are independent; sexual distress is more sensitive to treatment than sexual satisfaction and can be present in the absence of sexual problems (Stephenson & Meston, 2010). In a sample of 261 pregnant women, 14% reported sexual distress in the absence of sexual problems and 42% reported clinical levels of sexual distress (Vannier & Rosen, 2017). Further, high sexual distress among new mothers is not necessarily associated with problems in other areas of sexual wellbeing, such as low sexual

CONTACT Natalie O. Rosen Natalie.Rosen@dal.ca Department of Psychology and Neuroscience, Dalhousie University, 1355 Oxford St, Halifax, Nova Scotia B3H 4R2, Canada

desire (Rosen et al., 2021). Assessing women's sexual distress during the transition to parenthood is particularly clinically relevant, given that personal distress is required for a clinical diagnosis of sexual dysfunction (American Psychological Association, 2013). In addition, greater sexual distress is associated with greater depressive symptoms postpartum (Dawson et al., 2022) as well as more treatment-seeking behaviors (Evangelia et al., 2010). Sexual distress, therefore, reflects an important indicator of who may benefit from clinical attention in the transition to parenthood.

A limited amount of research has examined sexual distress in women and couples during pregnancy and postpartum. Findings to date suggest that sexual distress is generally elevated and/or increases in this time period among new mothers. In 99 first-time parent couples, on average, new mothers reported clinically significant sexual distress at 3-months postpartum, and sexual distress increased across 12-months regardless of levels of distress at 3-months (Tutelman et al., 2022). With a separate sample of 203 couples, Dawson et al. (2022) found that new mothers' sexual distress increased from pregnancy to 3-months postpartum, and then decreased to 12 months postpartum, on average. Further latent class analyses of these data clarified different trajectories of sexual distress: 24% of new mothers reported clinically significant sexual distress that remained stable over time, whereas 76% did not report clinically elevated sexual distress but still reported, on average, an increase in sexual distress over time (Rosen et al., 2021). By comparison, partners' levels of sexual distress were below clinical cutoffs and did not increase over time (Rosen et al., 2021). We still lack knowledge of factors that predict sexual distress in the transition to parenthood. In one study, new mothers who felt that they and their partners were more collaborative in their coping as a couple reported less sexual distress at 3-months postpartum (Tutelman et al., 2022), suggesting that protective factors could buffer against increased sexual distress in the transition to parenthood.

Sexual Values and Distress

One novel protective factor might be feeling successful at living in line with one's values in relation to their sexual relationship. The importance of sexuality or of one's sexual relationship may vary across women, and potentially within women during a time of life transition, with implications for distress related to sexuality. According to the empirically-supported Psychological Flexibility (or Hexaflex) Model, which is the foundation of Acceptance and Commitment Therapy (ACT), disruption to an individual's connection with their values and/or their ability to take actions in daily life that are in line with their values contributes to psychological suffering (Grégoire et al., 2020; Hayes et al., 2012). By contrast, when individuals are aware of their personal values, and can engage in activities that are in line with their values, this promotes adaptability and engagement in intrinsically rewarding behaviors (Hayes et al., 2012). In the transition to parenthood, new mothers face significant physical, psychological, and social changes that may limit their ability to live in line with their sexual values. According to the Psychological Flexibility Model, those who strongly value their role as a sexual partner, yet are not finding this value reflected in their behaviors (e.g., not finding time for partnered sexual activity postpartum), might experience more distress related to their sexuality. In contrast, those who are able to find (potentially new) ways of taking action in line with their sexual values, even during a transitional time of becoming a new parent, might experience less sexual distress.

Despite a growing literature on the role of values and valued action in psychological wellbeing (Hayes et al., 2012), there has been a paucity of work examining associations between sexual values and sexual wellbeing. In a cross-sectional nationally representative sample in Finland, women who considered sexuality to be more important reported higher sexual frequency, more engagement in a variety of sexual techniques, better sexual self-esteem, and more sexual satisfaction (Haavio-Mannila & Kontula, 1997). A cross-national study – the Global Study of Sexual Attitudes and Behaviors – found that approximately 30% of Canadian and American women reported that sexuality was an extremely or very important part of their overall life (Laumann et al., 2006). Clusters of women who highly valued sexuality reported moderate to high sexual satisfaction, whereas sexual satisfaction was lower in a cluster of women who did not highly value sexuality (Laumann et al., 2006).

There is preliminary evidence that the importance of sexuality varies through the transition to parenthood. In one study, 26 pregnant women retrospectively recalled significantly greater importance of sexuality pre-pregnancy compared to their reports in early pregnancy (15 weeks), late pregnancy (35 weeks), or 6-months postpartum (Trutnovsky et al., 2006). The authors did not report on pairwise differences between the postpartum time points, and their quantitative analyses focused on mean differences. Thus, the extent to which sexual values vary throughout the transition to parenthood remains unclear. More sophisticated multilevel analyses, with a larger sample size, would enable examination of both between-person variations in sexual values (i.e., across women) as well as within-person variations (i.e., changes within women over time). In line with the Psychological Flexibility Model, it would also be essential to examine how successful women feel they are in living in line with their sexual values, because feeling that one's actions are not in line with their values can contribute to distress (Grégoire et al., 2020; Hayes et al., 2012). Finally, interpersonal values that relate to who is important to us, or the kind of person we would like to be in relationships, can be particularly reinforcing, as they promote better relationships (Polk & Schoendorff, 2014). Given that new mothers commonly experience sexual concerns within relationships, their values and actions related to the kind of sexual partner they would like to be may be especially relevant to their sexual distress. In fact, new mothers who are more motivated to meet a partner's sexual needs report better sexual and relationship satisfaction themselves (Muise et al., 2017); thus, success living in line with *partner-oriented* sexual values may be protective for new mothers in the transition to parenthood.

In sum, research to date has not sufficiently captured variability in new mothers' sexual values through the transition to parenthood, or their associations with sexual distress. Further investigation into these associations, as well as women's success living in line with sexual values, could reveal novel protective factors and intervention targets that promote psychological flexibility in the transition to parenthood. Psychological flexibility is a transdiagnostic process, meaning that it promotes mental health and wellbeing across a range of psychological struggles and may therefore foster resiliency

during times of adversity (Kroska et al., 2020). Thus, strategies that support new mothers' psychological flexibility may be impactful in building resiliency in women and couples during a vulnerable period of the transition to parenthood.

Current Study and Hypotheses

In a longitudinal study, we investigated whether the extent to which new mothers valued their role as a sexual partner, and their success living in line with this value, were associated with their sexual distress. We examined a partner-oriented sexual value (i.e., being the kind of sexual partner you want to be for your significant other; termed "sexual value" for ease of readability), and success living in line with this partner-oriented sexual value (termed "sexual success"), given that interpersonal values are motivating and pertinent for those in relationships. We sampled 367 women during pregnancy (18–20 weeks) and at 3, 6, 12 and 24-months postpartum. We used multilevel structural equation modeling to test associations at the between-subject level (i.e., averaged across time/variability across women) and the within-subject level (i.e., co-occurring changes over time/variability within women).

At both between- and within-subject levels, we hypothesized that (1) higher ratings of sexual values would be associated with greater sexual distress; and (2) above and beyond effects of sexual values, higher ratings of success living in line with one's sexual values would be associated with lower sexual distress. Our hypotheses were based on past literature and predictions from the Psychological Flexibility Model applied to a period of known challenges for women's sexuality. We controlled for relationship values (i.e., the importance of one's role as a romantic partner), success living in line with this relationship value, sexual frequency, and time, to ensure effects were specific to sexual values rather than relationship values overall or confounded by sexual frequency or changes in sexual distress over time. Prior analyses with the current sample showed that labor and delivery characteristics were not associated with mothers' sexual wellbeing (Dawson et al., 2020; Vannier et al., 2018). In our own analyses, we did not find that delivery method, degree of perineal tearing, breastfeeding, or subsequent pregnancy (categorical variables) predicted sexual distress at any time point, all $ps > .20$, nor did we find strong ($r > |.30|$) associations between age, relationship length, or fatigue (continuous variables) with sexual distress at any time point, all $rs < |.19|$; therefore, we did not control for these variables in analyses.[1]

Method

Participants

Women[2] pregnant with their first child were recruited at routine 18- to 20-week ultrasound appointments at a hospital clinic. Inclusion criteria for the current study were: (1) 18–20 weeks pregnant with their first child at the time of recruitment[3] (baseline), (2) uncomplicated, singleton pregnancy, (3) 18 years of age or older, (4) in a romantic relationship, (5) fluent in English, (6) access to a personal e-mail, and (7) did not report severe and unmanaged medical or psychiatric disorder. Women of all sexual orientations and with partners of any gender/sex were eligible. Table 1 provides a summary of demographic data. A detailed summary of the flow of study participants can be found in Supplemental Materials on the Open Science Framework (OSF; https://osf.io/jpy2m/). The final sample, $N = 367$, comprised women who completed the baseline survey between April 2016 and August 2017. When participants ($n = 13$) reported a change in relationship status at a follow-up time-point, which resulted in them no longer being eligible for this study, their data were marked as missing from that time-point onwards. The follow-up time-points included the following number of eligible participants who provided data for at least one of our predictor variables:

Table 1. Summary of sample sociodemographic data (N = 367).

	M (*SD*)	*n* (%)
Age	29.63 (4.16)	
Weeks pregnant at baseline	20.76 (1.17)	
Relationship length in years	6.35 (3.75)	
Relationship status at baseline		
Married		246 (67)
Common-law partnership		52 (14.2)
Living with a partner		29 (7.9)
Engaged		29 (7.9)
Dating one partner regularly		10 (2.7)
Culture		
English Canadian		311 (84.7)
French Canadian		10 (2.7)
Asian		10 (2.7)
American		7 (1.9)
African Canadian		6 (1.6)
Additional cultures[a] (each < 2% of sample)		23 (6.3)
Education		
Less than high school		2 (0.5)
High school diploma or GED		39 (10.6)
Community college diploma		81 (22.1)
University degree		153 (41.7)
Masters/PhD		56 (15.3)
Secondary university degree (e.g., law, MD)		35 (9.5)
Income		
< $20, 000		8 (2.2)
$20,000 – $39,999		27 (7.4)
$40,000 – $59,999		41 (11.2)
$60,000 – $79,999		54 (14.7)
$80,000 – $99,999		79 (21.5)
$100,000 and over		156 (42.5)
Sexual orientation		
Heterosexual/Straight		343 (93.5)
Bisexual		17 (4.6)
Additional sexual orientations[b] (each <1% of sample)		7 (1.9)

[a]Additional cultures included: First Nations Canadian, Native American, Australian, Middle Eastern, Western European, Eastern European, Caribbean, East Indian, Indian, Biracial, Mixed Race, Scandinavian, Acadian Canadian, British

[b]Additional sexual orientations included: lesbian, gay, pansexual, queer, unlabeled, questioning

[1]In response to a reviewer's feedback, we examined whether depression or anxiety were covariates. We found that depression and anxiety scores were moderately correlated with sexual distress at some time points ($rs > |.30|$); however, inclusion of these scores as covariates in our analysis did not affect any results.

[2]All participants identified as female and as a woman; thus, we refer to them as women or mothers.

[3]At the time of completion of the baseline survey, women ranged from 18–25 weeks pregnant because they were provided up to 4 weeks to complete each survey.

3 months (n = 362; 98.64% of baseline sample), 6 months (n = 345; 94.01%), 12 months (n = 327; 89.10%), 24 months (n = 311; 84.74%). Note that all women who provided baseline data (N = 367) could be included in the current analyses given our use of robust Full Information Maximum Likelihood (FIML) estimator to handle missing data (see Data Analysis section).

Measures

Demographics and Covariates

Participants reported on demographic information in the baseline survey, including their age, relationship status and duration, education, income, cultural background, and sexual orientation. At each time point, they also reported on their frequency of engaging in six partnered sexual activities over the past four weeks; total scores ranging from 0 to 36 were computed as a covariate in the current study, with higher scores reflecting more frequent and/or varied partnered sexual activity (see Rosen et al., 2021). All measures for this study, including demographics and covariates, can be found on our OSF page.

Sexual Values and Success

At each time point, participants completed a well-validated values inventory (Chronic Pain Values Inventory [CPVI]; McCracken & Yang, 2006), adapted to include items related to sexuality and prompting participants to reflect on the past four weeks (see OSF). In the CPVI, participants are first asked to consider the important ways in which they would most want to live their life, and to rate the importance of each of six domains (family, intimate relations, friends, work, health, growth and learning) on a Likert-type scale from 0 (*Not at all important*) to 5 (*Extremely important*). They are then presented with the same items and asked to rate how much success they have had in living according to each value on a scale from 0 (*Not at all successful*) to 5 (*Extremely successful*). The CPVI was originally designed for use with chronic pain populations; however, the instructions refer broadly to, "painful situations" or "circumstances where you are not living that way [according to values]." Thus, the measure is applicable to individuals coping with various types of painful situations or challenges. The original CPVI included an item, for each of the importance and success scales, related to romantic relationships ("Intimate relations: Being the kind of partner you want to be for your husband/wife or closest partner in life"). In the current study, we added an item to each scale pertaining to partner-oriented sexuality: "Sexuality: Being the kind of sexual partner you want to be for your significant other in life."

Our analyses focused on participants' ratings of the partner-oriented sexuality item in terms of importance ("sexual value") and success ("sexual success"). We also controlled for responses to the intimate relationships value and success items ("relationship value" and "relationship success," respectively). At the 6-month time point, participants did not complete the entire CPVI – they reported on their sexual values and success, but the relationship items were omitted to reduce participant burden.[4] The original six CPVI items have been found to have good internal consistency (α = .82 for each of the values and success scales; McCracken & Yang, 2006). In the current sample, Pearson correlations between the sexuality and intimate relation items ranged across time points from .38 to .62 for values, and from .49 to .70 for success, suggesting these items assessed related but independent constructs.

Sexual Distress

Sexual distress was measured at each time point using the well-validated Female Sexual Distress Scale-Revised (FSDS-R; DeRogatis et al., 2008), prompting participants to respond based on the past four weeks. The FSDS-R consists of 13 items where participants rate how often they feel bothered or distressed by sexual problems on a Likert-type scale from 0 (*Never*) to 4 (*Always*). Total scores ranging from 0 to 52 were computed at each time point, with higher scores indicating greater sexual distress. Past research showed excellent internal consistency (α = .92; DeRogatis et al., 2008) and good construct validity (Derogatis et al., 2002, 2008). In the current sample, there was excellent internal consistency at all time points (α > .93).

Procedure

Participants were recruited as part of a larger study on physical and psychosocial functioning in first-time mothers. Our OSF page provides a summary of prior published analyses of these data and outlines that there is no overlap between the variables or analyses of any prior published works with the current research questions or analyses. Potential participants attended routine 18–20 week ultrasound appointments at a hospital ultrasound clinic. A research assistant informed them of the current study and, if they were interested, assessed their eligibility. If eligible, the research assistant obtained informed written consent for participation. Participants completed surveys online via an emailed link using Qualtrics Research Suite survey software. They received links to surveys at baseline (18–20 weeks pregnant) and at 3, 6, 12, and 24 months postpartum. Participants had up to 4 weeks to complete each survey. We used an established protocol to promote participation, including telephone and e-mail reminders; survey links expired after four weeks. Participants were compensated with Amazon.ca gift cards valued at $5 for the baseline survey and $10 for each of the postpartum surveys. To encourage completion of the later follow up surveys, participants who completed the 12-month and/or 24-month surveys were entered into a draw to win an additional $50 Amazon.ca gift card (50 draw prizes total). This study was approved by our institution's ethics review board.

Data Analysis

We computed descriptive statistics with SPSS Version 26 (IBM Corp, 2019) and conducted all other analyses with MPlus Version 8.6 (Muthén & Muthén, 1998–2017) using the FIML estimator to handle missing data.[5] Prior to computing total scores for sexual distress and sexual frequency, we used

[4]All data for relationship values and success were missing at the 6-month time point and estimated using robust FIML in the analysis controlling for these variables (see Data Analysis).

[5]Additionally, the Microsoft Excel add-on "MplusTools" was utilized to help facilitate presenting results (https://github.com/Zendaug/MplusTools/releases).

maximum likelihood imputation for item-level missing data provided that the missing data were less than 20% of the total number of items in a given measure (Newman, 2003).

We analyzed data using multilevel structural equation modeling (MSEM; Preacher et al., 2010; see also, Mackinnon et al., 2019). We used latent variable centering (Asparouhov & Muthén, 2019) to partition variance into between-subject components (i.e., trait-like variance that does not vary across time points) and within-subject components (i.e., state-like variance that varies across time points). Our structural model (Figure 1) included two predictor variables (sexual values, sexual success) and one outcome variable (sexual distress). We included time as a control variable in the within-subject model to account for its effects on the outcome variable and to model its associations with the predictor variables, given that the variables were measured at multiple time points. In line with theorized associations between variables, all paths in the model were connected (i.e., correlations between all predictor and control variables were included; outcome regressed on all predictors). The model was therefore saturated and, as such, had perfect fit, which is common in single outcome, multiple predictor models (e.g., multiple regression; Preacher et al., 2010); thus, there are no fit statistics to report. We report standardized coefficients for both the between- and within-subject effects.

After running the primary model to test our hypotheses (Model 1), we ran two models to control for potential confounding variables. To ensure observed effects were above and beyond relationship values and success living in line with relationship values, two predictors were added to the initial model: relationship values and relationship success (Model 2). To ensure observed effects were not confounded by variation in sexual frequency, one predictor was added to the initial model: sexual frequency (Model 3). De-identified data, syntax, and output are available on OSF.

Results

Descriptive statistics for the key predictor and outcome variables (Model 1) are provided in Table 2. A complete correlation matrix and descriptive statistics for all variables in the three models are provided in supplemental materials on OSF. The intraclass correlation coefficients (ICC) were 0.37, 0.34, and 0.51 for sexual values, sexual success, and sexual distress, respectively; these correlations were of medium magnitudes, indicating that scores on each measure tended to cluster within participants across time points, as anticipated (Cohen, 1992; Page-Gould, 2016), and that there was sufficient variability between participants (Preacher et al., 2010), supporting the use of multilevel modeling. Figure 1 provides a visual depiction of the multilevel path models for Model 1. Standardized results of all three multilevel structural equation models are presented in Table 3, and results are summarized below.

Between-Subject Effects

Here we present the between-subject results of our multilevel structural equation model, which examined whether there were associations between trait-like variations across women in sexual values or success and sexual distress. We observed that sexual values and sexual success scores were significantly positively correlated between-subjects, $r = .63$ [95% CI: .53, .73], $p < .001$, indicating that mothers who reported more strongly valuing their role as a sexual partner tended to report more success at living in line with this sexual value. In support of our hypothesis, we found that sexual values were positively associated with sexual distress between-subjects, $\beta = .39$ [95% CI: .23, .55], $p < .001$, such that mothers who reported more strongly valuing their role as a sexual partner on average across the transition to parenthood, tended to

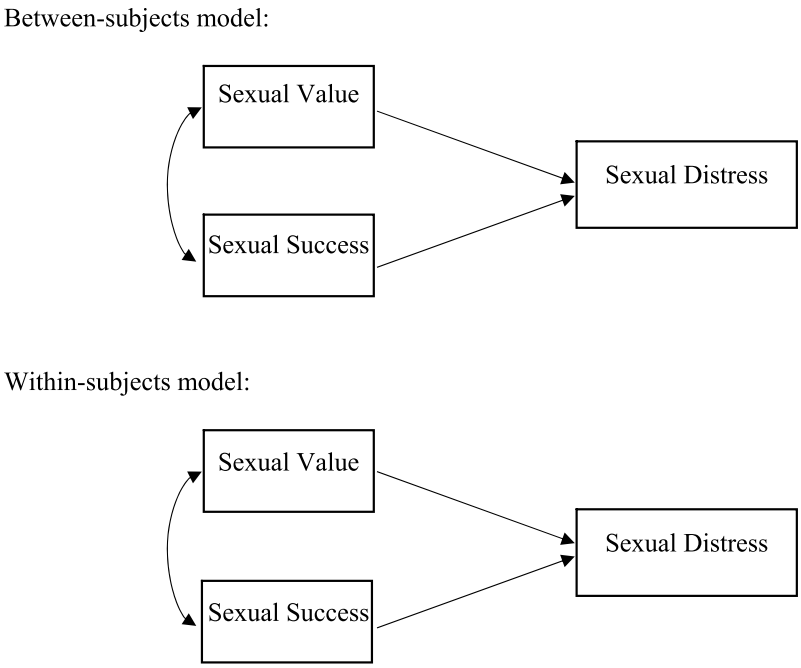

Figure 1. Multilevel path models for model 1. Note. The top figure depicts the between-subject model (i.e., variability across women/averaged over time) and the bottom figure depicts the within-subject model (i.e., co-occurring variance across time points/variability within women). "Sexual value" reflects ratings of the importance of "Being the kind of sexual partner you want to be for your significant other in life," and "sexual success" reflects ratings of the extent to which participants felt they were living according to this partner-oriented sexual value. Note that time was also included as a predictor in the within-subjects model, along with its correlations with sexual values and success; this level of detail was omitted for visual clarity.

Table 2. Descriptive statistics for key variables at each time point and averaged across time points.

	Pregnancy *M* (*SD*)	3 months *M* (*SD*)	6 months *M* (*SD*)	12 months *M* (*SD*)	24 months *M* (*SD*)	Averaged Across Time *M* (*SD*)
Sexual value	3.67 (0.95)	2.90 (1.39)	3.50 (1.08)	3.05 (1.17)	2.81 (1.30)	3.20 (0.88)
Sexual success	2.95 (1.22)	1.94 (1.44)	2.36 (1.44)	2.18 (1.38)	1.98 (1.42)	2.31 (1.01)
Sexual distress	11.88 (8.74)	13.40 (9.68)	13.38 (10.15)	11.42 (9.61)	12.13 (10.32)	12.49 (7.63)

"Sexual value" reflects ratings of the importance of "Being the kind of sexual partner you want to be for your significant other in life," on a scale from 0 (*Not at all important*) to 9 (*Extremely important*). "Sexual success" reflects ratings of the extent to which participants felt they were living according to this partner-oriented sexual value, on a scale from 0 (*Not at all successful*) to 9 (*Extremely successful*). Sexual distress reflects total scores on the Female Sexual Distress Scale (range 0–52).

Table 3. Standardized results of multilevel structural equation models predicting sexual distress.

	Model 1		Model 2		Model 3	
	β	95% CI	β	95% CI	β	95% CI
Between-subjects						
Sexual value	.39***	[.23, .55]	.24	[−.08, .57]	.36***	[.20, .52]
Sexual success	−.83***	[−.96, −.70]	−.49*	[−.88, −.09]	−.88***	[−1.01, −.74]
Sexual frequency	–	–	–	–	.13*	[.01, .25]
Relationship value	–	–	.17	[−.25, .59]	–	–
Relationship success	–	–	−.43	[−.92, .05]	–	–
Within-subjects						
Sexual value	.13***	[.07, .19]	.15***	[.09, .21]	.14***	[.08, .20]
Sexual success	−.46***	[−.51, −.40]	−.40***	[−.47, −.33]	−.38***	[−.44, −.32]
Sexual frequency	–	–	–	–	−.15***	[−.21, −.09]
Relationship value	–	–	−.03	[−.10, .05]	–	–
Relationship success	–	–	−.10*	[−.18, −.02]	–	–
Time	−.09***	[−.14, −.04]	−.11***	[−.15, −.06]	−.10***	[−.15, −.06]
R^2 (*between*)	.44***		.47***		.45***	
R^2 (*within*)	.18***		.18***		.19***	

"Sexual value" reflects ratings of the importance of "Being the kind of sexual partner you want to be for your significant other in life," and "sexual success" reflects ratings of the extent to which participants felt they were living according to this partner-oriented sexual value. CI = confidence interval. N = 367 women.
*** $p < .001$, * $p < .05$.

report more sexual distress on average across this same time period. We also found that, as predicted, above and beyond the effect of sexual values, sexual success was negatively associated with sexual distress between-subjects, β = −.83 [95% CI: −.96, −.70], $p < .001$; thus, mothers who reported greater success at living in line with their values as a sexual partner on average tended to report less sexual distress.

When controlling for mothers' ratings of the importance of their role as a romantic partner, and success living in line with this relationship value, the between-subject association was the same for sexual success and distress, but the association between sexual values and distress became not significant, β = .24 [95% CI: −.08, .57], $p = .14$. Of note, the importance of women's role as a romantic partner was not associated with sexual distress, β = .17 [95% CI: −.25, .59], $p = .43$, nor was their success living in line with this relationship value, β = −.43 [95% CI: −.92, .05], $p = .08$; thus, relationship values and success living in line with these were not driving associations between sexual values and sexual distress. All between-subject effects remained significant when controlling for sexual frequency.

Within-Subject Effects

We now present the within-subject results of our multilevel structural equation model, which examined co-occurring changes within women in state-like variations across time points. We observed that sexual values and sexual success scores were significantly positively correlated within-subjects, $r = .38$ [95% CI: .33, .43], $p < .001$, indicating that when mothers reported valuing their role as a sexual partner more strongly than their own average during the transition to parenthood, they also tended to report being more successful than average at living in line with this sexual value. In support of our hypothesis, we found that sexual values were positively associated with sexual distress within-subjects, β = .13 [95% CI: .07, .19], $p < .001$, such that when mothers reported more strongly valuing their role as a sexual partner, relative to their own average, they tended to report greater levels of sexual distress. We also found that, as predicted, above and beyond the effect of sexual values, sexual success was negatively associated with sexual distress within-subjects, β = −.46 [95% CI: −.51, −.40], $p < .001$; thus, when mothers reported greater success at living in line with their values as a sexual partner, relative to their own average, they tended to report less sexual distress. When controlling for mothers' ratings of the importance of their role as a romantic partner, and success living in line with this relationship value, all within-subject results were the same; thus, the effects described here emerged above and beyond any effects of valuing one's role as a romantic partner overall. Similarly, all within-subject effects were consistent when controlling for sexual frequency.

Discussion

This longitudinal study investigated associations between new mothers' sexual values, and success living in line with their sexual values, with their sexual distress across the transition to

parenthood. We specifically examined a partner-oriented sexual value – the importance of one's role as a sexual partner, and success living in line with this value – given that interpersonal values are highly motivating (Polk & Schoendorff, 2014) and that women's sexual difficulties in the transition to parenthood frequently occur within relationships. As predicted, at both trait-like and state-like levels, when new mothers more strongly valued their role as a sexual partner, they tended to report more sexual distress; yet, when they reported more success at living in line with this sexual value, they tended to report less sexual distress. When controlling for general relationship values and success, the between-subject (trait-like) association between sexual values and distress was not significant; all other associations were robust to controlling for covariates of relationship values and success, sexual frequency, and time. This research offers a novel application of the empirically-supported Psychological Flexibility Model (Hayes et al., 2012) to sexuality and relationships, and suggests that living more in line with sexual relationship values could be protective for women's sexual distress during a vulnerable time.

We observed that a partner-oriented sexual value, and success living in line with this sexual value, were strongly positively correlated between-subjects and moderately positively correlated within-subjects. Thus, women who more strongly valued their role as a sexual partner tended to report more success living in line with this value, and these same associations were observed for women's own variation in sexual values and success across time points. However, there was independent variance in sexual values and success – their correlation coefficients revealed approximately 60% non-shared variance between-subjects and 86% non-shared variance within-subjects – suggesting that more strongly valuing one's role as a sexual partner is not always associated with more success living in line with this value and, in fact, we saw different directions of their associations with sexual distress.

Our finding of positive associations between sexual values and sexual distress was in line with predictions but may seem counter-intuitive at first glance. Past cross-sectional studies have shown that more strongly valuing sexuality is associated with better sexual wellbeing (Haavio-Mannila & Kontula, 1997; Laumann et al., 2006), which would be reflected by lower sexual distress in new mothers. Previous investigations focused on community samples, whereas we sampled new mothers in a period of known challenges in the domain of sexuality (Rosen et al., 2021; Vannier & Rosen, 2017). Strongly valuing one's role as a sexual partner, at a time when it is difficult to live in line with this partner-oriented sexual value – due to strain that physical and psychological challenges place on women's sexual relationships in the transition to parenthood (Leavitt et al., 2017; McBride & Kwee, 2017) – would be expected to be associated with greater distress, according to the Psychological Flexibility Model (Hayes et al., 2012). The association between sexual values and distress was more robust within-subjects than between-subjects, as it was not significant between-subjects when controlling for the importance of one's role as a partner overall (this relationship value was also not associated with sexual distress). New mothers face many biopsychosocial adjustments (McBride & Kwee, 2017); thus, variation in priorities or values may be common; our results indicate that variation in sexual values within-women is associated with fluctuations in their distress related to sexuality.

Our finding of negative associations between sexual success and sexual distress was also in line with our predictions. When new mothers felt they were more successful at living in line with their partner-oriented sexual value – regardless of how important their role as a sexual partner was to them – they reported less sexual distress. Feeling more successful at living in line with one's sexual values may reflect greater psychological flexibility and resiliency in the transition to parenthood (Hayes et al., 2012). New mothers who are able to adapt to inevitable challenges postpartum, such as reduced time and energy for sexual activity, by finding ways to foster sexual intimacy in their relationships (e.g., prioritizing time for partnered sexual activity, being motivated to meet a partner's sexual needs, broadening ideas of what intimacy entails) may feel more successful at living in line with their values related to their sexual relationship, and may, in turn, experience less distress related to sexuality. Of note, the association between sexual success and sexual distress was not driven by variation in sexual frequency (nor was the association between sexual values and distress), suggesting that living in line with one's values as a sexual partner is not limited to frequency of partnered sexual activity. The association between sexual success and sexual distress was observed both between- and within-subjects, and was robust to controlling for sexual values, relationship values, and relationship success. Thus, regardless of how much women valued their role as a romantic or sexual partner, or how successful they felt they were as a romantic partner, when women felt they were successful in their role as a sexual partner, they reported less sexual distress.

It is notable that, in the current sample, women did not tend to report high levels of sexual values or success in living in line with those values. On average across time points, on a scale from 0 to 9, women rated the importance of their role as a sexual partner as 3.20 (SD = 0.88), and their success living in line with this sexual value as 2.31 (SD = 1.01; see Table 2). We do not have data to directly compare these ratings with those of women who are not in the transition to parenthood. However, in a sample of 540 heterosexual women with fairly even distribution across ages 18–81 (M_{age} = 33.7, SD = 13.9), 71.7% of women rated sex as important or very important to them (Sanders et al., 2008). A global cross-national study found that 30% of women aged 40–80 in Canada and the United States reported that sexuality was an extremely or very important part of their overall life (Laumann et al., 2006). It is possible that sexuality is valued less highly by women in the transition to parenthood compared to the general population of women – this question could be tested directly in future research.

Nonetheless, ratings in the current sample could reflect that other areas of life are more strongly prioritized during the transition to parenthood, which may be beneficial given the many competing demands and novel challenges new parents face. From an evolutionary perspective, a reduced emphasis on the sexual relationship postpartum could be adaptive for new parents, enabling them to focus time and energy on their new child (Lorenz et al., 2020). A psychodynamic perspective has even proposed a unique, illness-like state of "Primary Maternal Preoccupation," where new mothers are biologically and psychologically conditioned to be hypersensitive to a new infant's needs (Winnicott, 1956); from this perspective, it would follow that

other priorities, such as one's sexual relationship, would diminish at this time. Our findings provide some evidence that prioritizing the sexual relationship less postpartum could be adaptive, as less strongly valuing one's role as a sexual partner was associated with less sexual distress. When new mothers do not strongly value their role as a sexual partner, they may be more easily able to feel successful living in line with this value and/or they may feel less pressure about a partner's expectations related to sexuality, which could be protective for their own sexual distress. It is also possible that new mothers do not recognize the potential benefits (e.g., coping with stress, intimacy with partner, physical and mental health) that sexuality could have for their wellbeing and relationships (Mitchell et al., 2013; Rosen et al., 2020; Tavares et al., 2019), especially in light of evidence that new mothers receive very little information about sexuality during the transition to parenthood (Barrett et al., 2000).

This research offers important clinical implications and directions for future investigation of novel treatment targets – connection to sexual values and valued actions – for supporting new mothers' sexual wellbeing during the transition to parenthood. For new mothers who strongly value their role as a sexual partner, intervention efforts that increase connection with this sexual value without providing skills for taking action in line with the value, could engender more distress, as this may increase felt pressure or awareness that they are not living in line with an important value. Strategies from Acceptance and Commitment Therapy (ACT) that promote psychological flexibility through values exploration (Hayes et al., 2006, 2012) might assist women in identifying what is meaningful to them about their role as a sexual partner. For some, this meaning may relate to their sense of themselves as a woman, while for others it may relate to their desire for intimacy, or their desire to satisfy a partner. Greater clarity of values is associated with greater engagement in behaviors in line with values (Grégoire et al., 2020); thus, ACT strategies applied to sexuality may enable new mothers to find ways to live more in line with their values within their sexual relationship, which may alleviate their sexual distress. For example, exploration of sexual values could help women identify reasons to engage in sexual activity in pursuit of positive relationship outcomes (i.e., *approach goals* for sex), and/or connect with their motivations to meet a partner's sexual needs (termed *sexual communal strength*), both of which are associated with greater sexual and relationship satisfaction (Muise et al., 2013, 2017). Such potential mechanisms for associations between sexual values, sexual success, and sexual wellbeing in the transition to parenthood could be explored in future work.

Future research could also test interactions between sexual values and sexual success, to clarify for whom values-based intervention might be most effective. For example, feeling successful in living in line with partner-oriented sexual values may be most beneficial for mitigating sexual distress among new mothers who more strongly value their role as a sexual partner. Finally, it is important for clinicians to recognize that sexual values can vary throughout the transition to parenthood; thus, values exploration should be an ongoing process. Future work could investigate whether associations between sexual values or success and sexual distress are stronger at some time points in the transition to parenthood than others, which could reveal sensitive periods that may most benefit from values-based intervention.

There are several strengths of the current research. Our longitudinal design and multilevel data analytical approach enabled us to provide novel insights into both between- and within-person variation in sexual values, success, and distress during a two-year period of new mothers' transitions to parenthood. To our knowledge, this was the first multilevel investigation of sexual values through the transition to parenthood, and the first study linking sexual values with sexual distress. Our sample size was large, and we controlled for important covariates to test the robustness of our effects.

As for limitations, we assessed sexual values and sexual success with single items, which may limit the reliability of these data. These items were added to an existing validated values measure (McCracken & Yang, 2006) for this initial investigation of sexual values in the transition to parenthood. Given the promising effects observed, future work would benefit from validating expanded measures of sexual values and success living in line with sexual values. In addition, the current values measure was developed for use with chronic pain populations, and referred to "painful experiences" in the instructions. Although the instructions were fairly broad, and could be interpreted to refer to a range of difficult life circumstances, it is possible that reference to pain impacted participant responses. Future measurement development could enable assessment of a broader range of values related to sexuality, without reference to pain, and testing of their associations with sexual distress. Our sample was limited in its diversity with respect to sexual orientation, gender, culture, and socioeconomic status (see Table 1). Values may be influenced by cultural background (McCracken & Yang, 2006) which may include social and gender norms; thus, future work comparing sexual values, and their associations with sexual distress, across cultures and genders would be particularly impactful for guiding clinical assessment and intervention efforts in the transition to parenthood. Finally, future work should take a dyadic lens by including partners' sexual values and successes in the transition to parenthood to account for the interdependence of new parent couples' experiences, and potentially how similarity or mismatch between partners' values may relate to their sexual and relationship wellbeing. Such dyadic work could provide new insights into how one partner's values regarding their role as a sexual partner might be related to or influenced by their perception of their partner's values or partner support.

Conclusions

Results of this longitudinal study demonstrated that variation in the importance of one's role as a sexual partner, and success living in line with this partner-oriented sexual value, both between- and within-women in the transition to parenthood, meaningfully related to sexual distress. When women more strongly valued their role as a sexual partner during this time where sexual problems are common, they tended to report more distress related to sexuality. Yet, when women felt they were more successful at living in line with their sexual value – regardless of how important their role as a sexual partner was to them – they tended to report less sexual distress. Strategies that encourage new mothers to

explore their sexual values, such as what is meaningful about their role as a sexual partner, and to consider flexible ways of living in line with their sexual values, could buffer against sexual distress during the transition to parenthood.

Acknowledgments

We are grateful to Gillian Boudreau, Kayla Mooney, Hannah Richardson, Emily Coté, Loriann Williams, Jaimie Beveridge, and Megan Muise for their assistance with data collection, and to the women who participated in this research. A version of the findings reported in this study were presented at the annual meeting of the International Academy of Sex Research (July 2021, virtual meeting).

Disclosure Statement

No potential conflict of interest was reported by the authors.

Funding

This research was supported by grants awarded to Natalie O. Rosen from the Canadian Institutes of Health Research and Research Nova Scotia. Jackie S. Huberman was supported by a Social Sciences and Humanities Research Council of Canada Postdoctoral Fellowship and David B. Allsop was supported by doctoral awards from Dalhousie University, Killam, Nova Scotia Graduate Studies, and Maritime SPOR SUPPORT.

ORCID

Jackie S. Huberman http://orcid.org/0000-0003-1086-5545
David B. Allsop http://orcid.org/0000-0002-4481-9961
Natalie O. Rosen http://orcid.org/0000-0002-4525-0770

References

American Psychological Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association.

Asparouhov, T., & Muthén, B. (2019). Latent variable centering of predictors and mediators in multilevel and time-series models. *Structural Equation Modeling: A Multidisciplinary Journal*, *26*(1), 119–142. https://doi.org/10.1080/10705511.2018.1511375

Barrett, G., Pendry, E., Peacock, J., Victor, C., Thakar, R., & Manyonda, I. (2000). Women's sexual health after childbirth. *BJOG: An International Journal of Obstetrics and Gynaecology*, *107*(2), 186–195. https://doi.org/10.1111/j.1471-0528.2000.tb11689.x

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Dawson, S. J., Vaillancourt-Morel, M.-P., Pierce, M., & Rosen, N. O. (2020). Biopsychosocial predictors of trajectories of postpartum sexual function in first-time mothers. *Health Psychology*, *39*(8), 700–710. https://doi.org/10.1037/hea0000861

Dawson, S. J., Strickland, N. J., & Rosen, N. O. (2022). Longitudinal associations between depressive symptoms and postpartum sexual concerns among first-time parent couples. *The Journal of Sex Research*, *59*(2), 150–159. https://doi.org/10.1080/00224499.2020.1836114

Derogatis, L. R., Rosen, R., Leiblum, S., Burnett, A., & Heiman, J. (2002). The Female Sexual Distress Scale (FSDS): Initial validation of a standardized scale for assessment of sexually related personal distress in women. *Journal of Sex and Marital Therapy*, *28*(4), 317–330. https://doi.org/10.1080/00926230290001448

DeRogatis, L., Clayton, A., Lewis-D'agostino, D., Wunderlich, G., & Fu, Y. (2008). Validation of the Female Sexual Distress Scale-Revised for assessing distress in women with hypoactive sexual desire disorder. *The Journal of Sexual Medicine*, *5*(2), 357–364. https://doi.org/10.1111/j.1743-6109.2007.00672.x

Evangelia, N., Kirana, P. S., Chiu, G., Link, C., Rosen, R., & Hatzichristou, D. (2010). Level of bother and treatment-seeking predictors among male and female in-patients with sexual problems: A hospital-based study. *The Journal of Sexual Medicine*, *7*(2 PART 1), 700–711. https://doi.org/10.1111/j.1743-6109.2009.01605.x

Grégoire, S., Gagnon, J., Lachance, L., Shankland, R., Dionne, F., Kotsou, I., Monestès, J. L., Rolffs, J. L., & Rogge, R. D. (2020). Validation of the English and French versions of the Multidimensional Psychological Flexibility Inventory Short Form (MPFI-24). *Journal of Contextual Behavioral Science*, *18*(June), 99–110. https://doi.org/10.1016/j.jcbs.2020.06.004

Haavio-Mannila, E., & Kontula, O. (1997). Correlates of increased sexual satisfaction. *Archives of Sexual Behavior*, *26*(4), 399–419. https://doi.org/10.1023/A:1024591318836

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, *44*(1), 1–25. https://doi.org/10.1016/j.brat.2005.06.006

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). Psychological flexibility as a unified model of human functioning. In *Acceptance and Commitment Therapy: The process and practice of mindful change* (2nd ed., pp. 60–99). The Guilford Press.

IBM Corp. (2019). *IBM SPSS Statistics for Macintosh (Version 26.0)*.

Kroska, E. B., Roche, A. I., Adamowicz, J. L., & Stegall, M. S. (2020). Psychological flexibility in the context of COVID-19 adversity: Associations with distress. *Journal of Contextual Behavioral Science*, *18*, 28–33. https://doi.org/10.1016/j.jcbs.2020.07.011

Laumann, E. O., Paik, A., Glasser, D. B., Kang, J.-H., Wang, T., Levinson, B., Moreira, E. D., Nicolosi, A., & Gingell, C. (2006). A cross-national study of subjective sexual well-being among older women and men: Findings from the Global Study of Sexual Attitudes and Behaviors. *Archives of Sexual Behavior*, *35*(2), 143–159. https://doi.org/10.1007/s10508-005-9005-3

Leavitt, C. E., McDaniel, B. T., Maas, M. K., & Feinberg, M. E. (2017). Parenting stress and sexual satisfaction among first-time parents: A dyadic approach. *Sex Roles*, *76*(5–6), 346–355. https://doi.org/10.1007/s11199-016-0623-0

Lorenz, T. K., Ramsdell, E. L., & Brock, R. L. (2020). A close and supportive interparental bond during pregnancy predicts greater decline in sexual activity from pregnancy to postpartum: Applying an evolutionary perspective. *Frontiers in Psychology*, *10*, 1–11. https://doi.org/10.3389/fpsyg.2019.02974

Mackinnon, S. P., Ray, C. M., Firth, S. M., & O'Connor, R. M. (2019). Perfectionism, negative motives for drinking, and alcohol-related problems: A 21-day diary study. *Journal of Research in Personality*, *78*, 177–188. https://doi.org/10.1016/j.jrp.2018.12.003

McBride, H. L., & Kwee, J. L. (2017). Sex after baby: Women's sexual function in the postpartum period. *Current Sexual Health Reports*, *9*(3), 142–149. https://doi.org/10.1007/s11930-017-0116-3

McCracken, L. M., & Yang, S. Y. (2006). The role of values in a contextual cognitive-behavioral approach to chronic pain. *Pain*, *123*(1–2), 137–145. https://doi.org/10.1016/j.pain.2006.02.021

Mitchell, K. R., Mercer, C. H., Ploubidis, G. B., Jones, K. G., Datta, J., Field, N., Copas, A. J., Tanton, C., Erens, B., Sonnenberg, P., Clifton, S., Macdowall, W., Phelps, A., Johnson, A. M., & Wellings, K. (2013). Sexual function in Britain: Findings from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3). *The Lancet*, *382*(9907), 1817–1829. https://doi.org/10.1016/S0140-6736(13)62366-1

Muise, A., Impett, E. A., & Desmarais, S. (2013). Getting it on versus getting it over with: Sexual motivation, desire, and satisfaction in intimate bonds. *Personality and Social Psychology Bulletin*, *39*(10), 1320–1332. https://doi.org/10.1177/0146167213490963

Muise, A., Kim, J. J., Impett, E. A., & Rosen, N. O. (2017). Understanding when a partner is not in the mood: Sexual communal strength in couples transitioning to parenthood. *Archives of Sexual Behavior*, *46* (7), 1993–2006. https://doi.org/10.1007/s10508-016-0920-2

Muthén, L. K., & Muthén, B. (1998-2017). *Mplus user's guide* (*8th* ed.). Muthén & Muthén.

Newman, D. A. (2003). Longitudinal modeling with randomly and systematically missing data: A simulation of ad hoc, maximum likelihood, and multiple imputation techniques. *Organizational Research Methods*, *6*(3), 328–362. https://doi.org/10.1177/1094428103254673

Page-Gould, E. (2016). Multilevel modeling. In J. T. Cacioppo, L. Tassinary, & G. Berntson Eds., *Handbook of Psychophysiology* (4th ed., pp. 628–661). Cambridge University Press. https://doi.org/10.1017/9781107415782.030

Polk, K. L., & Schoendorff, B. (2014). *The ACT matrix: A new approach to building psychological flexibility across settings and populations* (K. L. Polk & B. Schoendorff, Eds.). Context Press/New Harbinger Publications.

Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, *15*(3), 209–233. https://doi.org/10.1037/a0020141

Rosen, N. O., Williams, L., Vannier, S. A., & Mackinnon, S. P. (2020). Sexual intimacy in first-time mothers: Associations with sexual and relationship satisfaction across three waves. *Archives of Sexual Behavior*, *49*(8), 2849–2861. https://doi.org/10.1007/s10508-020-01667-1

Rosen, N. O., Dawson, S. J., Leonhardt, N. D., Vannier, S. A., & Impett, E. A. (2021). Trajectories of sexual well-being among couples in the transition to parenthood. *Journal of Family Psychology*, *35*(4), 523–533. https://doi.org/10.1037/fam0000689

Sanders, S. A., Graham, C. A., & Milhausen, R. R. (2008). Predicting sexual problems in women: The relevance of sexual excitation and sexual inhibition. *Archives of Sexual Behavior*, *37*(2), 241–251. https://doi.org/10.1007/s10508-007-9235-7

Stephenson, K. R., & Meston, C. M. (2010). Differentiating components of sexual well-being in women: Are sexual satisfaction and sexual distress independent constructs? *The Journal of Sexual Medicine*, *7*(7), 2458–2468. https://doi.org/10.1111/j.1743-6109.2010.01836.x

Tavares, I. M., Schlagintweit, H. E., Nobre, P. J., & Rosen, N. O. (2019). Sexual well-being and perceived stress in couples transitioning to parenthood: A dyadic analysis. *International Journal of Clinical and Health Psychology*, *19*(3), 198–208. https://doi.org/10.1016/j.ijchp.2019.07.004

Trutnovsky, G., Haas, J., Lang, U., & Petru, E. (2006). Women's perception of sexuality during pregnancy and after birth. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, *46*(4), 282–287. https://doi.org/10.1111/j.1479-828X.2006.00592.x

Tutelman, P. R., Dawson, S. J., Schwenck, G. C., & Rosen, N. O. (2022). A longitudinal examination of common dyadic coping and sexual distress in new parent couples during the transition to parenthood. *Family Process*, *61*(1), 278–293. https://doi.org/10.1111/famp.12661

Vannier, S. A., & Rosen, N. O. (2017). Sexual distress and sexual problems during pregnancy: Associations with sexual and relationship satisfaction. *The Journal of Sexual Medicine*, *14*(3), 387–395. https://doi.org/10.1016/j.jsxm.2016.12.239

Vannier, S. A., Adare, K. E., & Rosen, N. O. (2018). Is it me or you? First-time mothers' attributions for postpartum sexual concerns are associated with sexual and relationship satisfaction in the transition to parenthood. *Journal of Social and Personal Relationships*, *35*(4), 577–599. https://doi.org/10.1177/0265407517743086

Winnicott, D. W. (1956). Primary maternal preoccupation. In D. W. Winnicott (Ed.), *Through paediatrics to psychoanalysis*. Hogarth Press and the Institute of Psycho-Analysis.