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Sexual Motivation in Couples Coping with Female Sexual Interest/Arousal Disorder: A Comparison with Control Couples

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ABSTRACT

A lack of interest in sex is a common sexual issue, especially among women, and can be associated with lower relationship satisfaction and greater psychological distress. Research on sexual motivation has demonstrated that, in both community and clinical samples, people higher in sexual communal strength (motivated to meet their partner's sexual needs) and approach sexual goals (motivated to engage in sex to pursue positive outcomes) report higher desire and relationship satisfaction; whereas people higher in avoidance sexual goals (motivated to engage in sex to avert negative outcomes) tend to report lower desire and satisfaction. In the current study, we compared the sexual motivation of women diagnosed with female sexual interest/arousal disorder (FSIAD), who report chronic low desire and arousal accompanied by distress, and their partners ($N = 97$ couples) with couples without a sexual dysfunction ($N = 108$ couples). Women with FSIAD reported lower sexual communal strength and approach goals and higher avoidance sexual goals compared with control women and their own partners. However, the partners of women with FSIAD did not report differences in sexual motivation compared with control partners. Sexual motivation may be a target for future intervention studies with couples coping with low desire and arousal.

Sexuality is a key factor that contributes to relationship satisfaction and personal well being (for a review, see Impett, Muise, & Peragine, 2014; see also Muise, Schimmack, & Impett, 2016; Sprecher, 2002), yet sexual dysfunctions are common and can be highly distressing for couples (Rosen et al., 2009). Low sexual desire is the most prevalent sexual dysfunction reported by women (Laumann & Rosen, 1999; Bancroft, Loftus, & Long, 2003). In fact, population-based studies indicate that one in three women in the United States reports a current lack of interest in sex (Rosen et al., 2009) and 8% of women report low desire that reaches clinical levels (West et al., 2008). Female sexual interest/arousal disorder (FSIAD) is a sexual dysfunction characterized by women experiencing low desire and/or arousal accompanied by distress for a minimum of 6 consecutive months (American Psychiatric Association, 2013). A lack of interest in sex is linked to poorer well being; women with clinically low levels of sexual desire report greater depressive symptoms and anxiety, as well as lower levels of sexual and relationship satisfaction, compared with women without low desire (for review, see Basson, 2005; Hayes et al., 2008; Jiann, Su, Yu, Wu, & Huang, 2009; Rosen et al., 2009; Rosen, Dubé, Corsini-Munt, & Muise, 2019; Trudel, Boulos, & Matte, 1993). A woman's low sexual desire not only impacts her own personal and relational well being but is also associated with negative consequences for her partner. In fact, partners of women with FSIAD report lower sexual and relationship satisfaction, higher sexual

distress, poorer sexual communication, and more difficulty with orgasm and erectile functioning compared with partners of women without a sexual dysfunction (Rosen et al., 2019).

Given the prevalence and negative correlates of FSIAD, it is important to understand the interpersonal and motivational factors that might contribute to these differences. Many women with FSIAD engage in sex with their partner despite their low desire (for reviews, see Basson, 2005; Brotto & Luria, 2014) and their reasons for engaging in sex may differ from women without this disorder (Herbenick, Mullinax, & Mark, 2014). Research on sexual motivation in both community (Day, Muise, Joel, & Impett, 2015; Muise & Impett, 2015; Muise, Impett, Kogan, & Desmarais, 2013a) and clinical samples (Muise, Bergeron, Impett, & Rosen, 2017; Rosen et al., 2018) has demonstrated that people who are more motivated to meet their partner's sexual needs (i.e., high *sexual communal strength*) and when people engaged in sex to pursue positive outcomes (i.e., high *approach sexual goals*), they report higher desire and higher sexual and relationship satisfaction. In contrast, when people engage in sex to avoid negative outcomes (i.e., high *avoidance sexual goals*), they report lower desire and satisfaction (Muise, Impett, & Desmarais, 2013a; Rosen et al., 2018). In the current study, our aim was to compare the sexual motivation—sexual communal strength and approach and avoidance sexual goals—of couples coping with FSIAD to couples without a sexual dysfunction. Understanding differences in sexual motivation between couples coping with FSIAD and controls could identify an important target for intervention.

Sexual communal motivation

Theories of sexual communal motivation suggest that responsiveness to a partner's sexual needs even during times when partners have different sexual interests can have benefits for romantic relationships (Day et al., 2015; Muise & Impett, 2015). In community samples, people higher in sexual communal strength—those who are highly motivated to meet their partner's sexual needs—reported higher daily sexual desire and were more likely to maintain desire over a 4-month period compared with people lower in sexual communal strength (Muise et al., 2013a). Recently, work on sexual communal strength has been extended to clinical populations of couples coping with a sexual dysfunction. In a sample of couples where the woman experiences pain during sex (i.e., has been diagnosed with genito-pelvic pain/penetration disorder; GPPPD), on days when women reported higher sexual communal strength, both they and their partners reported better sexual function, which included higher levels of desire and arousal and greater sexual and relationship satisfaction (Muise, Bergeron, Impett, & Rosen, 2017, 2018), but women with GPPPD tended to report lower levels of sexual communal strength compared with their partners (Muise, Bergeron, Impett, & Rosen, 2017). However, sexual communal strength varies within both clinical and community samples and it is not yet clear from this past research whether women with clinically low levels of sexual desire and their partners differ from control couples without a sexual dysfunction.

There is evidence to suggest that women with FSIAD are lower in sexual communal strength compared with women without a sexual dysfunction. In a Finnish population-based study, women's low desire was associated with a reluctance to satisfy their partner's sexual needs (Witting et al., 2008). Further, in clinical settings, many women with FSIAD report that their motivation for engaging in sex with their partner is low (Brotto & Luria, 2014). In a qualitative study of strategies that women use to cope with low sexual desire, 14% of women stated that aiming to meet their partner's sexual needs is one way they tried to increase their desire (Herbenick et al., 2014), suggesting that feelings of low desire are associated with being *less* motivated to meet a partner's needs. Therefore, previous qualitative studies and clinical insights suggest that women with FSIAD may report lower levels of sexual communal strength compared with women without a sexual dysfunction, though this hypothesis has not previously been tested. We will also test the prediction that women with FSIAD will report significantly lower sexual communal strength

compared with their own partners given this trend in other clinical samples (Muise et al., 2017). Testing for differences between women and their own partners will enhance understanding of how differences in motivations play out within couples—that is, are partners' motivations similarly diminished or not.

Previous findings show that partners of women with clinically low desire report dissatisfaction with their sex life and overall relationship and report less affection and emotional connection in their relationships (Trudel et al., 1993; Rosen et al., 2009). Given the lower relationship satisfaction of partners of women with FSIAD and the link between higher sexual communal strength and greater relationship satisfaction (Day et al., 2015), it is possible that partners of women with FSIAD also report lower levels of sexual communal strength compared with control partners. However, it is also possible that the negative sexual and relationship outcomes experienced by the partners of women with FSIAD are driven, in part, by the women's lower level of sexual communal strength because one partner's sexual communal strength is associated with the other partner's sexual and relationship satisfaction (Day et al., 2015; Muise & Impett, 2015). Therefore, due to the lack of previous research that includes the partner of women with clinically low sexual desire, we will compare partners of women with FSIAD to control partners in an exploratory manner. This comparison will also provide novel insight into whether the partners of women with FSIAD have lower sexual motivation or if their lower sexual and relationship well being might be, at least partly, attributed to deficits in women's sexual motivation rather than their own.

Approach–avoidance sexual motivation

Research guided by approach–avoidance motivational theory (for a review, see Gable & Impett, 2012) has demonstrated that differences in a person's reasons for engaging in sex are associated with differences in their own and their partner's desire and satisfaction. In community samples, when people reported engaging in sex for *approach goals*, to pursue positive outcomes in their relationship, such as to enhance intimacy, both partners reported higher desire and sexual and relationship satisfaction (Cooper, Talley, Sheldon, Levitt, & Barber, 2008; Cooper, Barber, Zhaoyang, & Talley, 2011; Impett, Gable, & Peplau, 2005; Muise, Impett, & Desmarais, 2013a, 2013b). In contrast, when people engaged in sex for *avoidance goals*, to avert negative outcomes in their relationship, such as to avoid conflict or a partner's disappointment, both partners reported lower desire and satisfaction (Cooper et al., 2008, 2011; Impett et al., 2005; Muise, Impett, & Desmarais, 2013b). It is important to note that approach and avoidance sexual goals are independent, and it is possible to report higher approach goals but not necessarily lower avoidance goals (e.g., Gable, Reis, & Elliot, 2003). In a clinical sample of women with GPPPD and their partners, when women reported stronger approach sexual goals, they reported higher sexual and relationship satisfaction, but when women reported stronger avoidance goals, they reported lower sexual and relationship satisfaction and more depressive symptoms (Rosen, Muise, Bergeron, Impett, & Boudreau, 2015). Given that sexual goals tend to be associated with sexual desire (and relationship and sexual satisfaction, which tend to be lower for couples coping with FSIAD; Rosen et al., 2019), it is possible the women with FSIAD may report higher avoidance and lower approach sexual goals compared with couples without a sexual dysfunction. In fact, women with another sexual dysfunction (i.e., GPPPD) reported higher avoidance sexual goals and lower approach sexual goals compared with women without a sexual dysfunction and compared with their own partners (Dubé, Bergeron, Muise, Impett, & Rosen, 2017).

In qualitative studies, women with low sexual desire commonly reported engaging in sex to “get it over with” or to avoid feeling guilty for not engaging in sex (Jabs & Brotto, 2018; Herbenick et al., 2014), suggesting that women with FSIAD might be highly avoidance motivated toward sex. In addition, in focus groups, women talked about wanting to avoid negative feelings

or experiences as inhibiting their sexual interest and arousal, whereas wanting to pursue positive experiences such as feeling desired or loved and accepted by a partner as enhancing their sexual interest and arousal (Graham, Sanders, Milhausen, & McBride, 2004), suggesting that low desire and arousal might be linked with higher avoidance and lower approach sexual goals. In fact, in clinical settings, it is common for women with FSIAD to report low approach-motivated reasons for sex, such as to connect with a partner or express affection, and high avoidance-motivated reasons, such as to avoid losing their partner (Brotto & Luria, 2014). Therefore, we expect that women with FSIAD will report lower approach and higher avoidance sexual goals compared with women without a sexual dysfunction and compared with their own partners.

It is less clear whether the approach and avoidance sexual goals of partners will differ from controls. In community samples, it is common for romantic partners to report similar sexual goals (Laurin, 2016), so the partners of women with FSIAD may report lower approach sexual goals and higher avoidance sexual goals compared with control couples. However, because the women are diagnosed with FSIAD and therefore may be coping with a greater degree of distress, her sexual goals may be most affected. Partners of women with GPPPD did not report different levels of approach or avoidance sexual goals compared with healthy controls (Dubé et al., 2017). Based on previous comparison with another clinical sample (Dubé et al., 2017), we do not expect differences between partners of women with FSIAD and control partners. However, it is important to test this comparison to gain insight into the experiences of partners of women coping with FSIAD, which will inform couple-based interventions.

The current study

We conducted a cross-sectional study with both members of romantic couples where the woman is diagnosed with FSIAD, as well as a sample of control couples who were not experiencing sexual dysfunction. Our goal was to test whether women coping with FSIAD reported lower sexual communal strength and approach sexual goals and higher avoidance sexual goals compared with control women. Further, we also compared the sexual communal strength and sexual goals of women with FSIAD with their partners and partners of women with FSIAD with control partners. Support for our hypotheses provides empirical evidence for sexual motivation as an important target of intervention in and of itself. Importantly, results will provide more nuanced information to clinicians regarding what specific aspects of sexual motivation should be targeted within the couple context.

Method

Participants

In order to compare couples coping with FSIAD with a control sample of couples, we recruited two dyadic samples for the current study. Both samples were recruited separately between September 2016 and May 2018 through online (e.g., Kijiji, Facebook, Twitter, and Reddit) and physical (e.g., hospitals, universities, and community buildings) advertisements across North America. Participants were required to be 18 years or older, fluent in English, and couples were required to be in a committed relationship with each other for at least 6 months, with a minimum of four in-person contacts per week during the last month. Descriptive information for both samples is reported in Table 1.

Couples coping with FSIAD

The study was advertised as a study for couples coping with low sexual desire and an email was provided for people interested to learn more about the study. Research assistants set up a

Table 1. Sample demographics.

Characteristic	FSIAD				Controls			
	Women		Partners		Women		Partners	
	M (range) or n	SD or %	M (range) or n	SD or %	M (range) or n	SD or %	M (range) or n	SD or %
Age (years)	31.03 (19.07 – 57.48)	7.73	32.25 (19.07 – 70.34)	9.27	29.85 (19.24 – 61.37)	8.58	31.86 (19.15 – 64.29)	9.86
Ethnicity								
African American/Black	2	2.1%	2	2.1%	3	2.8%	6	5.6%
Asian American/Asian	8	8.3%	10	10.3%	5	4.6%	5	4.6%
Caucasian/White	70	72.9%	74	76.3%	77	71.3%	75	69.4%
East Indian	1	1%	1	1%	6	5.6%	4	3.7%
Hispanic/Latino/Latina	4	4.2%	2	2.1%	5	4.6%	4	3.7%
Middle Eastern/Central Asian	3	3.1%	3	3.1%	4	3.7%	4	3.7%
Biracial/Multiracial	3	3.1%	3	3.1%	1	.9%	6	5.6%
Other	5	5.2%	2	2.1%	7	6.5%	4	3.7%
Annual income (household; CAD\$)								
\$0—19,999	13	13.6%	–	–	18	16.7%	–	–
\$20,000—39,999	16	16.7%	–	–	24	22.2%	–	–
\$40,000—59,999	15	15.7%	–	–	18	16.6%	–	–
\$60,000—79,999	20	20.8%	–	–	19	17.6%	–	–
\$80,000—99,999	11	11.5%	–	–	11	10.2%	–	–
≥ \$100,000	21	21.9%	–	–	18	16.7%	–	–
Relationship status								
Dating	10	10.3%	–	–	23	21.3%	–	–
Cohabiting	26	26.8%	–	–	27	25.0%	–	–
Common-law	13	13.4%	–	–	7	6.5%	–	–
Engaged	7	7.2%	–	–	4	3.7%	–	–
Married	41	42.3%	–	–	45	41.7%	–	–
Relationship duration (months)	91.60 (8–419)	85.30	–	–	75.06 (6–449)	83.86	–	–
FSIAD duration (months)	54.65 (3–372)	63.14	–	–	–	–	–	–

Note. M = mean of sample; N = total number of observations; SD = standard deviation; % = percentage of sample. N = 97 couples with FSIAD and 108 control couples.

screening call with interested participants to conduct an initial eligibility screening. Women who met the basic eligibility criteria during this initial telephone screening and confirmed their partner was willing to participate were then diagnosed with FSIAD, consistent with DSM-5 criteria, based on a semi-structured clinical telephone interview (duration 30–40 minutes) with a clinical psychologist or PhD student in clinical psychology. The clinical interview was developed based on prior studies (Sarin, Amsel, & Binik, 2016; Paterson, Hand, & Brotto, 2017) and the clinical expertise of our team. Participants were excluded if they were pregnant, breastfeeding or within one year postpartum, undergoing hormonal therapy (hormonal contraceptives were allowed), did not have any prior sexual experience, or were currently undergoing treatment for low sexual interest/arousal. Initially, 215 women completed the eligibility screener and 174 women were deemed eligible. Of these women, 31 were no longer interested in participating, leaving 143 women who completed the clinical interview. Based on the clinical interview, 25 women were deemed ineligible due to reporting symptoms inconsistent with FSIAD. A total of 21 couples were excluded because one or both partners did not complete the survey within the 4-week allotted time ($n = 6$) or due to failed attention checks embedded in the survey ($n = 15$). The remaining 97 women with FSIAD and their partners ($N = 88$ men, 6 women, 3 other) were the final sample size.

Control couples

Control couples were recruited through advertisements targeting established couples that were not currently experiencing any sexual difficulties. Research assistants scheduled an initial eligibility screening over the phone with interested participants. During the eligibility call, participants were asked “Do you or your partner experience any sexual difficulties such as: pain during sexual intercourse, low desire, difficulty becoming aroused or sexually excited, difficulty with erection, difficulty or inability to orgasm, delayed or rapid ejaculation.” Only participants who indicated they were not experiencing any of these sexual problems were eligible to participate. Eligibility criteria also included not currently being pregnant, breastfeeding, or within 1 year of post-partum at the time of the study. A total of 143 couples completed the telephone screening call with a research assistant (duration 15–20 minutes), of which 119 couples were deemed eligible. Of these couples, 11 were excluded due to one or both partners not completing the survey within their allotted 4-week period ($n = 5$) or failed attention checks ($n = 4$) or missing key measures ($n = 2$). The remaining 108 control women and their partners ($N = 99$ men, 6 women, 3 other) were the final sample for the control group.

Procedure

This study was part of a larger study; one prior article has been published (*blinded*) comparing the sexual, psychological, and relationship well being of couples coping with FSIAD with control couples. In the current article, we compare couples coping with FSIAD with control couples on three aspects of sexual motivation, which were not tested in the previous paper. Couples in both samples who agreed to participate in the study received an individualized link to the online consent form and, once they provided consent, they were able to access the online survey. Qualtrics online survey software was used to distribute the surveys. Members of each couple were required to complete the survey within 4 weeks and were instructed to do so separately and without discussing their responses with one another. After completing the survey, participants received online resources about sexuality and relationships. Once both members of the couple completed the survey, they were each compensated \$18 CAD for FSIAD couples and \$10 CAD for control couples Amazon.com/ca gift cards.

Table 2. Sexual motivation variable means.

Variable	FSIAD				Controls			
	Women		Partners		Women		Partners	
	<i>M</i> (range)	<i>SD</i>	<i>M</i> (range)	<i>SD</i>	<i>M</i> (range)	<i>SD</i>	<i>M</i> (range)	<i>SD</i>
Sexual communal strength	2.35 _{abc} (.50 - 3.67)	.65	3.11 _a (1.83 - 4.0)	.51	3.12 _b (1.83 - 4.0)	.51	3.24 _c (1.83 - 4.0)	.45
Approach sexual goals	5.48 _{abc} (1.67 - 7.0)	1.21	6.27 _a (2.67 - 7.0)	.82	6.39 _b (4.33 - 7.0)	.68	6.24 _c (3.17 - 7.0)	.82
Avoidant sexual goals	4.13 _{abc} (1 - 7)	1.50	3.13 _a (1 - 7)	1.64	2.70 _{bd} (1.0 - 7.0)	1.68	3.46 _{cd} (1.0 - 7.0)	1.89

Note. *M* = mean of sample; *SD* = standard deviation. *N* = 97 couples with FSIAD and 108 control couples. For each outcome variable, means with the same subscript indicate a significant difference of $p < .001$.

Measures

In both samples, couples completed measures of their sexual communal strength and approach and avoidance sexual goals. Means and standard deviations of all measures are reported in Table 2.

Sexual communal strength (SCS)

Sexual communal strength was assessed with a six-item measure about a person's motivation to meet their partner's sexual needs (Muise et al., 2013a). An example item includes: "How likely are you to sacrifice your own needs to meet the sexual needs of your partner?" Items were rated on a five-point scale from 0 = *not at all* to 4 = *extremely*. The scale has demonstrated good reliability in previous community samples ($\alpha = .80$; Day et al., 2015). A mean score for each participant was calculated with higher scores indicating a greater motivation to meet a partner's sexual needs (FSIAD women: $\alpha = .73$; FSIAD partner: $\alpha = .67$; control women: $\alpha = .68$; control men: $\alpha = .62$).

Approach and avoidance sexual goals

The sexual goals were assessed using the partner-focused 12-item measure adapted from Impett, Strachman, Finkel, and Gable (2008). Six approach items were used to rate how important it is to the participant to pursue sex to enhance positive outcomes (e.g., "to promote intimacy in my relationship"), and six avoidant items measuring the importance of pursuing sex to avoid negative outcomes (e.g., "to prevent my partner from falling out of love with me"). All items were rated on a seven-point scale (1 = *not at all important* to 7 = *extremely important*). The scores were averaged, interpreting higher approach averages to mean a stronger goal for positive outcomes and higher avoidance averages means a stronger goal to avoid negative outcomes within the relationship (approach goals: FSIAD women: $\alpha = .86$; FSIAD partner: $\alpha = .84$; control women: $\alpha = .79$; control men: $\alpha = .81$; avoidance goals: FSIAD women: $\alpha = .84$; FSIAD partner: $\alpha = .91$; control women: $\alpha = .93$; control men: $\alpha = .95$).

Data analysis

Data and syntax are available here: https://osf.io/9acsk/?view_only=5a669353da204856a7d71-f4158e5009b. Statistical analyses were conducted using SPSS 24.0. "Condition" differentiated between couples coping with FSIAD and control couples, while "role" differentiated the role within the relationship. In the FSIAD sample, role distinguished the women with FSIAD from partners and, in the control sample, role distinguished women from their partners (i.e., if

both couple members in the control sample were women, the person assigned to the role of “woman” was the person who initially contacted us for the study). In both samples, partners were designated to the role of “partner” despite their gender. To compare couples coping with FSIAD with control couples, we conducted a 2 (role) \times 2 (condition) mixed multivariate ANOVA with role as a within-subjects factor. We followed up significant effects with univariate analyses to compare role and condition. Given the multiple comparisons, a Bonferroni–Holm correction was applied to all significance tests (Holm, 1979; Vasilopoulos, Morey, Dhataria, & Rice, 2016).

Results

Couples coping with FSIAD and control couples did not significantly differ in age (see Table 1 for descriptive statistics; women’s age: $F_{1, 1} = 1.36, p = .24$; partner’s age: $F_{1, 1} = .19, p = .66$) or relationship duration ($F_{1, 198} = 2.03, p = .16$); therefore, these variables were not entered as covariates in the analyses. Multivariate analyses revealed there were significant differences overall between condition (i.e., FSIAD versus control; $F_{1, 201} = 25.98, p < .001$), role (i.e., women versus partner; $F_{1, 201} = 25.04, p < .001$), and a significant condition-by-role interaction ($F_{1, 201} = 29.19, p < .001$) across outcomes. An analysis of variance revealed a main effect of condition such that couples coping with FSIAD differed significantly from control couples on sexual communal strength ($F_{1, 203} = 69.93, p < .001$), approach sexual goals ($F_{1, 203} = 21.64, p < .001$), and avoidance sexual goals ($F_{1, 203} = 9.67, p < .01$). See Table 2 for the means across groups.

The effects were qualified by a significant interaction between condition and role for sexual communal strength ($F_{1, 203} = 39.11, p < .001$), approach sexual goals ($F_{1, 203} = 32.39, p < .001$), and avoidance sexual goals ($F_{1, 203} = 32.77, p < .001$). The pairwise comparisons demonstrated that women with FSIAD reported significantly lower levels of sexual communal strength ($M_{\text{FSIAD}} = 2.35, M_{\text{Control}} = 3.12, p < .001$), approach sexual goals ($M_{\text{FSIAD}} = 5.48, M_{\text{Control}} = 6.39, p < .001$), and higher avoidance sexual goals ($M_{\text{FSIAD}} = 4.13, M_{\text{Control}} = 2.70, p < .001$) compared with control women. However, FSIAD partners did not report any significant differences in sexual communal strength ($M_{\text{FSIAD}} = 3.11, M_{\text{Control}} = 3.24, p = .061$), approach sexual goals ($M_{\text{FSIAD}} = 6.27, M_{\text{Control}} = 6.24, p = .822$), or avoidance sexual goals ($M_{\text{FSIAD}} = 3.13, M_{\text{Control}} = 3.46, p = .195$) compared with control partners.

Finally, pairwise comparisons also revealed that women with FSIAD reported significantly lower levels of sexual communal strength ($M_{\text{FSIAD}} = 2.35, M_{\text{Partner}} = 3.11, p < .001$) and approach sexual goals ($M_{\text{FSIAD}} = 5.48, M_{\text{Partner}} = 6.27, p < .001$), and higher avoidance sexual goals ($M_{\text{FSIAD}} = 4.13, M_{\text{Partner}} = 3.13, p < .001$) compared with their partners. Control women did not show significant differences in sexual communal strength or approach sexual goals compared with their own partners, but reported significantly lower avoidance sexual goals compared with their partners (sexual communal strength: $M_{\text{Women}} = 3.12, M_{\text{Partner}} = 3.24, p = .104$; approach sexual goals: $M_{\text{Women}} = 6.39, M_{\text{Partner}} = 6.24, p = .199$; avoidance sexual goals: $M_{\text{Women}} = 2.70, M_{\text{Partner}} = 3.46, p < .001$).

Discussion

In the current study, we compared the sexual motivation—sexual communal strength and approach and avoidance sexual goals—of women diagnosed with FSIAD and their partners with couples without a sexual dysfunction. Women with FSIAD reported lower sexual communal strength and approach sexual goals and higher avoidance sexual goals compared with control women and compared with their own partners. However, the partners of women with FSIAD did not report differences in sexual motivation compared with control partners. In the sample of control couples, control women did not report differences from their partners in sexual communal

strength or approach sexual goals but did report lower avoidance sexual goals compared with their partners. These findings are consistent with previous research comparing the approach and avoidance sexual goals of women diagnosed with another sexual dysfunction—GPPPD—and their partners with control couples (Dubé et al., 2017).

Previous research on both community and clinical samples has found that people who report higher sexual communal strength tend to report higher sexual desire (Muisse, Impett, & Desmarais, 2013a; Muise, Bergeron, Impett, & Rosen, 2017). Therefore, it is perhaps not surprising that women with FSIAD report lower sexual communal strength compared with women without a sexual dysfunction. However, there is variability in the levels of sexual communal strength within clinical samples (Muisse et al., 2017; Muise, Bergeron, Impett, Delisle, & Rosen, 2018), suggesting that this might be a novel target for future intervention research. Higher sexual communal strength is also associated with higher sexual and relationship satisfaction for both partners (Day et al., 2015; Muise & Impett, 2015; Muise et al., 2017). It is possible that women with FSIAD's lower sexual communal strength is one reason why they report lower sexual and relationship satisfaction and why their partners report lower sexual and relationship satisfaction as well (Rosen et al., 2019). A plausible explanation for women with FSIAD reporting lower sexual communal strength could be because they have difficulties recognizing and responding to their partners' sexual needs due to having fewer sexual needs themselves. In one study, women with clinically low levels of desire reported being less attuned to sexual cues, including emotional bonding with their partner, flirting, erotic images, or romantic moments, compared with women without low desire (McCall & Meston, 2006). Thus, women with FSIAD may be less attuned to their partners' sexual needs and are less communally responsive as a result.

Women with FSIAD also reported lower sexual communal strength compared with their own partner, whereas women in the control sample did not report differences from their partners in sexual communal strength. This finding suggests that, in couples coping with FSIAD, partners experience a discrepancy in their motivation to meet each other's sexual needs. A discrepancy in partners' sexual communal strength may be the result of poor sexual communication among couples coping with FSIAD (for review see Brotto & Luria, 2014; Witting et al., 2008) and may be associated with conflict in the relationship. For example, partners of women with FSIAD may want to meet her sexual needs, but her desire for sex is low, and partners may feel rejected when the woman is not motivated to meet their needs.

Because women with FSIAD have less interest in sex, it might be less important for her partner to be high in sexual communal strength, but instead, for her partner to demonstrate communal motivation by being responsive to her need *not* to engage in sex. In a previous study on couples transitioning to parenthood—a time when desire tends to be lower, especially for new mothers (Haugen, Schmutzer, & Wenzel, 2004; Jawed-Wessel & Sevcik, 2017)—when new fathers were understanding about new mother's sexual *disinterest*, this was a stronger predictor of new mothers' sexual and relationship satisfaction than the father's sexual communal strength (Muisse, Kim, Impett, & Rosen, 2017). Perhaps if partners of women with FSIAD are more communally understanding about her low desire for sex (as opposed to being higher in sexual communal strength), this could be important for the satisfaction of women coping with FSIAD. Future research could explore this possibility to determine whether this could be an additional means of intervention.

Consistent with research on GPPPD (Dubé et al., 2017), women with FSIAD also reported lower approach and higher avoidance sexual goals compared with control women. In clinical settings, women with low desire report feeling low motivation to engage in sex and describe less approach-oriented reasons for sex, such as to connect and show affection to their partners and more avoidance-oriented reasons for engaging in sex, such as to avoid losing a partner or upsetting a partner (Brotto & Luria, 2014). In a sample of couples coping with GPPPD, when women engaged in sex for more avoidance goals, they reported greater attention to negative interpersonal

cues such as a partner's feelings of frustration or disappointment or their own feelings of disconnection during sex. In turn, this attention to negative cues was associated with lower desire and satisfaction (Rosen et al., 2018). Women with FSIAD may also focus on concerns about upsetting their partner or their own lack of interest in sex, which might make it more difficult for them to focus on the positive aspects of sex, perhaps explaining why they report higher avoidance and lower approach goals for sex compared with control women. However, women with FSIAD still report higher approach goals compared with avoidance goals. Such findings indicate that, although they may attend more to negative goals for having sex, they are still able to access and recognize the potential benefits of sex, despite their low desire. Perhaps, in future intervention research, having women attend more to their approach reasons and less to their avoidance reasons could lead women with FSIAD to report higher desire and satisfaction.

Although the partners of women with FSIAD tend to report lower sexual and relationship satisfaction than healthy controls (Rosen et al., 2019), they did not differ in their approach or avoidance sexual goals compared with control partners. Given that one partner's avoidance goals are associated with the other partner's lower sexual and relationship satisfaction (Day et al., 2015; Muise, Impett, & Desmarais, 2013b; Muise, Bergeron, Impett, & Rosen, 2017, 2018), women with FSIAD's higher avoidance goals might be one reason why their partners report lower satisfaction. Therefore, it is possible that targeting women's sexual motivation may improve both partners' sexual and relationship well being.

Strength, limitations and future directions

The current study has several strengths. To our knowledge, this is the first study to examine sexual communal strength and approach-avoidance sexual goals in a population coping with FSIAD. By obtaining reports from both partners across two samples, we demonstrated that women with FSIAD report lower sexual communal strength and approach sexual goals and higher avoidance sexual goals compared not only with women without a sexual dysfunction but also with their own partners. Given these differences, the current research identifies a possible target for future intervention studies for women coping with FSIAD.

Despite the strengths, there may be limitations to the generalizability of our sample. Our participants were primarily in mixed-sex relationships, cis-gendered, North American, and Caucasian. Due to these demographics and the inclusion criteria that FSIAD couples could not currently be in treatment for low desire, these findings may not be generalizable to other couples coping with FSIAD or other more diverse samples. In addition, because both partners in each sample had to agree to participate in the study, these couples may have been more motivated to manage their sexual dysfunction and may have been more satisfied in their relationship compared with couples that were not interested in participating in a research study. In this study, we used the measure of sexual communal strength and, while this scale has been reliable in community samples ($\alpha = .80$; Day et al., 2015), the reliability was lower in the current sample (ranging from $\alpha = .62 - .73$). It is possible that it is more difficult for couples coping with low desire to report on their motivation to meet a partner's needs as reflected by the lower internal consistency of the measure. Future research might examine whether there are other response items that better capture this construct in couples coping with FSIAD. Finally, this study was cross sectional, and we cannot draw causal conclusions about whether deficiencies in sexual motivation underlie FSIAD. It is also possible that the cost of engaging in sex is experienced as higher for women with FSIAD due to their low sexual desire, making them less likely to prioritize their partners' sexual needs and to be approach-motivated for sex.

Previous research has demonstrated the effectiveness of a psychological interventions for improving sexual desire, overall sexual function, and sexual distress for women with FSIAD (for review, see Brotto, 2017; Frühauf, Gerger, Schmidt, Munder, & Barth, 2013; Paterson, Handy, &

Brotto, 2017). Future research could test whether a brief intervention designed to target sexual motivation leads to increases in sexual desire and greater sexual and relationship satisfaction for *both* partners coping with FSIAD. There is evidence from community samples that we can, at least temporarily, increase people's sexual communal strength and approach sexual goals (Day et al., 2015; Muise, Boudreau, & Rosen, 2017). When people are oriented to think about their partner's sexual needs or the benefits of approach sexual goals, they are more likely to engage in sex in situations of desire discrepancies, and both partners reported greater sexual and relationship satisfaction over the next week (Day et al., 2015; Muise, Boudreau, & Rosen, 2017). We are not aware of interventions that have aimed to reduce avoidance sexual goals, but it is possible that helping couples coping with FSIAD identify their avoidance goals for sex and work toward reducing their salience, may also help affected couples have better sexual experiences and feel more satisfied in their relationships.

Conclusion

The current study extends previous research by demonstrating differences in sexual motivation between women coping with FSIAD and healthy control women. Specifically, women coping with FSIAD reported lower sexual communal strength and approach sexual goals and higher avoidance sexual goals compared with women without a sexual dysfunction and to their own partner, but their partners did not differ in sexual motivation from control partners. A key implication of this study is that it identifies sexual motivation as a potential underlying etiological factor and an important target for interventions aimed at improving the well being of couples coping with FSIAD. Future longitudinal research is necessary to establish whether these differences in sexual motivation contribute to the onset and maintenance of FSIAD and associated consequences for both members of the couple over time.

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