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## Comparing Responses to Sexual Rejection and Sexual and Relationship Well-Being in Couples Coping with Sexual Interest/Arousal Disorder and Community Couples

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#### **ABSTRACT**

Four distinct partner responses to sexual rejection – sexual advances that are declined by a partner – have been identified. This study assessed the frequency of these responses between and within North American couples coping with Sexual Interest/Arousal Disorder (SIAD) and community couples and – in line with the *Interpersonal Emotion Regulation Model* – compared the associations between responses to sexual rejection and sexual and relationship well-being across the two samples. Individuals with SIAD and their partners (n = 241) and community couples (n = 105) completed online measures of sexual rejection responses, sexual satisfaction, sexual desire, sexual distress, sexual frequency, and relationship satisfaction. Results showed that after accounting for sexual rejection frequency, individuals with SIAD and their partners reported greater resentful and insecure partner responses to sexual rejection than individuals in the community sample, and individuals with SIAD perceived less understanding responses than their own partners reported. For both groups, more understanding and less resentful and insecure responses were associated with greater sexual and relationship well-being. Clinicians might encourage couples to reflect on their rejection responses and to shift to more helpful ways of responding to sexual rejection.

Researchers have shown that when sexual desire (i.e., motivation and wish to engage in sexual behavior; Dewitte et al., 2020) is maintained in romantic relationships, both partners benefit (Kim et al., 2021). For partnered individuals, feeling sexually desirable is associated with higher levels of sexual satisfaction, desire, and relationship quality (Birnbaum et al., 2016; Park & MacDonald, 2022). However, when sexual desire is substantially lower for one partner than the other, couples may experience negative impacts to their sexual and relationship well-being (Jodouin et al., 2021; Mark, 2015). Clinically low sexual desire (i.e., Sexual Interest/Arousal Disorder; SIAD<sup>1</sup>) is the most common sexual problem reported by women and a common reason for seeking couple therapy (Péloquin et al., 2019; West et al., 2008). Compared to community couples, women with SIAD and their partners report poorer sexual and relationship wellbeing (i.e., lower sexual satisfaction, desire, frequency, and relationship satisfaction, and greater sexual distress; Rosen et al., 2019). Despite the interpersonal nature of low sexual desire (Brotto et al., 2016), dyadic studies are rare as previous research has focused primarily on the person with SIAD, and there is limited understanding of how partner responses to low sexual desire affect couples' adjustment. This is a significant gap in the literature given that the *Interpersonal Emotion Regulation Model* of women's sexual dysfunction (Rosen & Bergeron, 2019) deems interpersonal factors integral to coping with sexual difficulties.

Because of the larger differences in sexual desire within couples coping with SIAD compared to community couples (Rosen et al., 2019), sexual rejection - declining a partners' sexual advances - may occur more frequently in Couples coping with SIAD, suggesting that partner responses in this context might be more salient. Indeed, prior qualitative research in couples coping with low sexual desire has identified sexual rejection as a common concern for both couple members, and one that is associated with distressing beliefs, emotions, and behavioral changes (Frost & Donovan, 2019). The primary aim of this study was therefore to examine whether a novel interpersonal factor - partner responses to sexual rejection - differed in frequency between and within (i.e., between couple members) couples coping with SIAD and community couples. We also aimed to examine how these responses are associated with sexual well-being and relationship satisfaction across the two samples.

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We use the term "SIAD" to refer to those with Female Sexual Interest/Arousal Disorder because our study was inclusive of women with diverse bodies and/or gender non-binary individuals assigned female at birth. Thus, we typically refer to individuals with SIAD despite the diagnosis referring to "Female" Sexual Interest/Arousal Disorder.

## Sexual Interest/Arousal Disorder (SIAD) and Sexual and Relationship Well-Being

According to population-based studies, an estimated 8% to 23% of women endorse chronically low, distressing levels of sexual desire (i.e., SIAD; West et al., 2008; Witting et al., 2008). The 5<sup>th</sup> Edition of the Diagnostic and Statistical Manual of Mental Disorders - Text Revision (DSM-5-TR; American Psychiatric Association, 2022) defines SIAD as absent or low levels of sexual interest or arousal persisting for six months or longer, that is distressing to the individual. Women coping with SIAD report greater depressive symptoms and anxiety, and lower levels of sexual satisfaction than women in the community, while there have been mixed findings for relationship satisfaction (Parish & Hahn, 2016; Rosen et al., 2019). Although partners of individuals with SIAD also report lower sexual and relationship satisfaction and greater sexual distress compared to partners of community women, women with SIAD carry a heavier burden as their sexual desire and sexual satisfaction are lower, and their sexual distress is higher, than those of their partners (Rosen et al., 2019).

Recent clinical and theoretical models have underscored the importance of investigating interpersonal factors associated with low sexual desire and couples' well-being (e.g., Prekatsounaki et al., 2022; Rosen & Bergeron, 2019; van Anders et al., 2022). For example, The Heteronormativity Theory of Low Sexual Desire in Women Partnered with Men (van Anders et al., 2022) posits that interpersonal factors (i.e., inequitable divisions of household labor and blurring of partner and mother roles) and consequences of socialization (i.e., objectification of women and gender norms surrounding sexual initiation) influence couple members' sexual interactions and expectations. Yet, previous research has often neglected the partner and their potential role in maintaining or intensifying SIAD symptoms and the associated consequences for the couples' sexual well-being and relationship satisfaction.

#### Responses to Sexual Rejection

The Interpersonal Emotion Regulation Model of women's sexual dysfunction (Rosen & Bergeron, 2019) suggests that interpersonal factors at both the distal (i.e., relational experiences that predate the sexual problem, such as attributions and sexual communication) and proximal (i.e., factors that occur before, during, and immediately following sexual activities) levels are key to coping with sexual difficulties. The model suggests that these interpersonal factors influence couples' emotion regulation, and in turn, affect the couples' sexual and relationship well-being. A novel proximal interpersonal factor that is relevant to SIAD is partner responses to sexual rejection. Sexual rejection is common in relationships, with community couples reporting it occurs at least once a week, and is linked to lower sexual and relationship satisfaction (Byers & Heinlein, 1989). Further, these effects have been shown to be long-lasting, enduring over multiple days (Dobson et al., 2020).

Couples coping with SIAD typically experience a discrepancy in levels of sexual desire between partners, which may lead to more frequent instances of sexual rejection. Qualitative research has identified sexual rejection as a substantial concern for both partners affected by SIAD. In one study, both couple members reported that there is an initiation imbalance (i.e., partners initiate sexual activity more than women with low sexual desire; Frost & Donovan, 2019). Women with low sexual desire described feeling guilty for frequently declining their partner's sexual advances, while their partners reported frustration and sadness, in addition to reduced initiation attempts (Frost & Donovan, 2019). Due to these intense emotions, affected couples may be especially sensitive and vulnerable to the implications of partner responses to sexual rejection, relative to those in the community sample. Further, it is unclear whether members of the couple perceive the frequency and type of partner responses to sexual rejection in a similar way (i.e., perceptions of the individual with SIAD vs. self-report of their partners). Identifying whether differences exist in the frequency of different types of responses within and between couples coping with SIAD and community couples is an important starting point for examining the salience of this behavior and potential implications for interventions.

In samples of sexually active participants in ongoing romantic relationships, Kim et al. (2019) identified four distinct types of responses to sexual rejection including: understanding (e.g., responsiveness, reaffirming positive regard toward a partner), resentful (e.g., expressing anger, guiltinducing), insecure (e.g., responding with feelings of sadness or hurt), and enticing (e.g., attempting to re-initiate sex or change a partner's mind). Per the Interpersonal Emotion Regulation Model (Rosen & Bergeron, 2019), it is possible that more understanding responses foster a more secure relational environment and promote more adaptive emotion regulation (e.g., reappraisal, whereas) resentful and insecure responses may heighten sensitivity to the threat of rejection, communicate a lack of empathy, and promote less adaptive emotion regulation (e.g., avoidance or catastrophizing). Regarding enticing responses, previous findings have linked greater enticing responses to both greater trait narcissism and sexual communal strength (i.e., responsiveness to a partner's sexual needs) - suggesting that in some cases, enticing responses may come from a place of entitlement, and in other cases they may reflect an interest in communal need fulfillment (Kim et al., 2019). Overall, although interdependent, because responses to sexual rejection are enacted by the rejected partner, and perceived by the rejector, each couple member may interpret the behaviors differently. Therefore, it is important to obtain separate reports from both partners to isolate the effects of perceived compared to self-reported responses to sexual rejection and their unique implications for each couple member's sexual and relationship well-being.

Prior studies examining partner responses to another sexual dysfunction in women – genito-pelvic pain/penetration disorder – which is associated with low sexual desire, have examined facilitative partner responses specific to painful intercourse (i.e., encouraging adaptive coping and expressing affection) as well as more global understanding, validating, and empathic partner responses, for example during discussions of their sexual dysfunction. In these studies, when women perceived greater facilitative and empathic partner responses,

both couple members reported greater sexual satisfaction, sexual function, and relationship satisfaction (Bergeron et al., 2021; Bois et al., 2016; Rosen et al., 2015, 2016). Additionally, when women perceived and partners reported more negative partner responses (e.g., hostility and frustration) to women's painful intercourse, both women and partners reported poorer sexual functioning, and women reported lower sexual and relationship satisfaction (Rosen et al., 2010, 2014, 2015). In couples coping with SIAD, when affected women perceived more positive (e.g., understanding, warm) relative to negative (e.g., hostile, judgmental) partner responses to their low sexual interest/arousal, they reported greater relationship satisfaction (Rosen et al., 2020). When partners of women with SIAD reported greater positive relative to negative responses, they also reported greater sexual and relationship satisfaction, and lower sexual distress and anxiety. However, this study assessed partners' general responses to women's low sexual desire/ arousal, and not responses to sexual rejection.

Given the frequency with which sexual rejection occurs in couples coping with sexual dysfunctions, it is a striking omission that researchers have neglected to examine how partners respond when an individual with SIAD declines their partner's sexual advances. It is possible that the associations between responses to sexual rejection and sexual and relationship wellbeing will be stronger for individuals with SIAD and their partners than those in the community sample, as there are significant negative beliefs, emotions, and behaviors associated with low sexual desire and sexual rejection for individuals with SIAD (Frost & Donovan, 2019). However, it is also possible that a higher frequency of sexual rejection in couples coping with SIAD may lead both members to become more accustomed to the rejection interaction, including how a partner responds to sexual rejection, thereby resulting in effects that are weaker or equal to effects in community couples. In short, comparing the frequency of responses to sexual rejection and the strength of their associations with sexual and relationship well-being, within and between couples, may highlight the relative importance of these responses for individuals in these two samples, and indicate a novel target for intervention.

#### The Current Study

In the present cross-sectional study, we examined the potential implications of responses to sexual rejection, a relevant interpersonal factor. Specifically, in light of some preliminary analyses (see pre-registration on OSF: https://osf.io/snv4d/) and prior research, we aimed (1) to test the prediction that individuals with SIAD would perceive, and their partners would report, higher understanding, resentful, insecure, and enticing responses to sexual rejection compared to their community counterparts, community women and/or individuals assigned female at birth (AFAB; individuals assigned female at birth, or AFAB, includes non-binary participants who were assigned female at birth) and community partners, respectively. Each individual within a couple may perceive and report rejection responses at varying frequencies, which may shape couples' sexual and relationship well-being in different ways. We therefore also aimed to assess differences between members within couples (i.e., comparing individuals with SIAD to their

partners and comparing community partners to each other) in an exploratory manner, as prior research on responses to sexual rejection has not assessed *perceptions* of responses to sexual rejection (Kim et al., 2019).

Our next aim (2) was to examine the hypothesis that, for all participants, higher understanding and lower insecure and resentful responses to sexual rejection would be associated with an individual's own and their partner's higher sexual satisfaction, sexual desire, sexual frequency, and relationship satisfaction, and lower sexual distress. Given previous mixed findings, the testing of associations with enticing sexual rejection responses was exploratory. In our final aim (3), we assessed whether the strength of these associations would differ by sample (i.e., SIAD vs. community) in an exploratory manner.

#### Method

#### **Participants and Common Procedure Across Samples**

Couples were recruited separately for the SIAD and community samples. The data for both the SIAD and community samples in the present study were drawn from two larger studies (for other projects utilizing data from the community sample, see this study's pre-registration on OSF: https://osf.io/ snv4d/). Couples coping with SIAD and community couples were recruited from Canada (n = 231 and n = 91, respectively) and the US (n = 10 and n = 14, respectively) through print and online advertisements (e.g., Facebook, Instagram). Specific efforts were made, through weekly discussions, to recruit non-WEIRD (i.e., Western, Educated, Industrialized, Rich, and Democratic; Henrich et al., 2010) participants. Participants in both studies were required to be 18 years or older, in a committed relationship for at least one year, fluent in English (or English and/or French for the SIAD study) and have access to a personal e-mail account. Couples in both samples were ineligible to participate if one or both members self-reported a mental or physical illness that was severe and untreated (e.g., untreated psychotic disorder), or if they were undergoing fertility treatment, pregnant, breastfeeding, or within one-year postpartum (i.e., transition to parenthood; Rosen et al., 2020). In both samples, interested participants completed an initial structured telephone screening interview with a member of our research team to assess eligibility and confirm the couple's interest in participating (see specific sample descriptions below for details). Once couples were enrolled and informed consent was obtained, participants were emailed individualized links to the baseline survey via Qualtrics Research Suite. Couple members were instructed to complete their surveys independently. The surveys took approximately 40 to 60 minutes to complete, and survey links expired after four weeks.

We conducted an a priori power analysis based on the Actor-Partner Interdependence Model (Cook & Kenny, 2005) using Kenny and Ackerman's (2014) online *APIM Power App*. With a moderate actor effect (.24; Rosen et al., 2020), a small partner effect (.12; Kim et al., 2018), a moderate correlation between partners' reported and perceived responses to low sexual interest/arousal (.34; Rosen et al.,

2020), 85% power, and an alpha of .05, we determined a necessary sample size of 103 couples in each group to assess our first and second aims, with our final aim being exploratory. The final sample included 241 couples coping with SIAD, and 105 community couples. More participants were recruited for the SIAD sample than required because the current study was embedded within a larger ongoing study.

#### SIAD Sample

Couples coping with SIAD (N=241) were recruited for a larger study from November 2020 to May 2022 (see Figure 1 for flow of participant inclusion). The larger study included three longitudinal time-points (baseline, 6-, and 12months) and a 56-day daily survey component. The current study only used the baseline survey data. To participate, one couple member had to be a woman and/or AFAB and meet DSM-5/DSM-5-TR (American Psychiatric Association, 2013, 2022) criteria for Female Sexual Interest and Arousal Disorder, as determined by a semi-structured clinical interview (see details below). While couples coping with SIAD were not required to cohabitate, they were required to have at least four in-person contacts (i.e., time together) per week over the past month to ensure opportunities for in-person sexual activity. Participants were excluded if they were currently undergoing treatment for sexual challenges or were trying to become pregnant. Additionally, as per DSM-5/DSM-5-TR criteria, the individual's symptoms could not have been attributed to medication, substance use, or a medical condition (including ongoing sexual challenges secondary to the transition to parenthood), and the onset or persistence of the problem could not be due to severe relationship distress.

For those couples who were deemed eligible based on the initial telephone screening interview, a semi-structured 30- to 45-minute clinical interview was scheduled with the partner experiencing low sexual desire via Zoom video conferencing or by telephone with a member of the research team trained in assessing sexual difficulties. Prior to the clinical interview, the partner experiencing low sexual desire was sent a consent form via Qualtrics for both the clinical assessment and the study. The partner of the individual with SIAD provided informed consent at the beginning of their survey. Each participant was compensated \$15 CDN (or USD equivalent), paid through their preference of gift card or e-transfer (available for those with a Canadian bank account) after completing the survey.

#### **Community Sample**

Community couples (N = 105; see Figure 1) were partially recruited for a larger study from February to July 2021. The larger study included two longitudinal time-points (baseline and 4-months follow-up) and 28 days of daily surveys. The

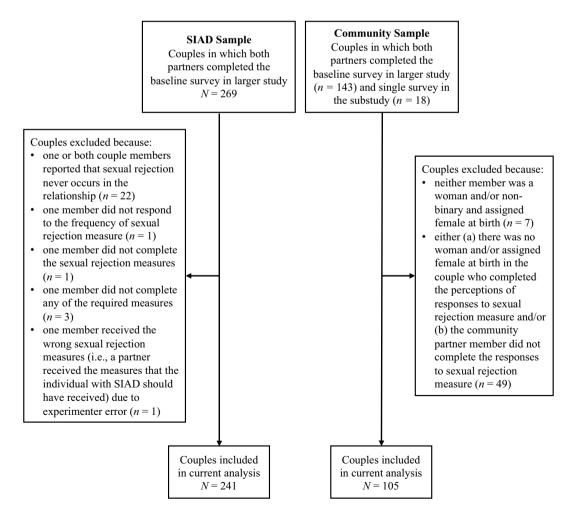


Figure 1. Flow of participant inclusion in the SIAD (N = 241) and community (N = 105) samples from the respective larger studies and community sample sub-study.

current study used data from the baseline survey only. Additional couples were recruited from December 2021 to January 2022 for the current study only (i.e., a single survey) after data cleaning revealed more couples were needed to meet the sample size requirements. No differences were found between the original sample and the additionally recruited couples on age, education, income, or length of relationship. In addition to the previously detailed inclusion and exclusion criteria, all participants in the community sample were required to be cohabitating for at least six months. There were no specific requirements regarding the quantity of their in-person contacts each week. Eligible couples completed the informed consent form prior to completing their survey. Participants received \$9 CAD (or USD equivalency), paid via gift card or e-transfer (available for those with a Canadian bank account) after completing the survey.

#### Measures

#### **Demographics**

Participants reported their age, gender, sexual orientation, culture, education, length of SIAD symptoms (reported by individuals with SIAD), relationship status and length (averaged between couple members), and combined annual income (averaged between couple members).

#### Frequency of Sexual Rejection

Participants reported how often they declined their partners for sex and how often their partners declined them for sex using two items (i.e., On average, how often [do you/does your partner] decline your [partner for sex/sexual advances]? In other words, how often [is your partner/are you] interested in sex, but [you are/your partner is] not interested at that time?). Responses were measured on a scale of 1 - Never to 5 -Daily. Couple members' reported frequencies of sexual rejection (i.e., how often individuals with SIAD and community women and/or AFAB reported rejecting their partners, and how often partners perceived being rejected) were moderately correlated  $(r_{SIAD}(239) = .40, p = .01; r_{Community}(103) = .49,$ p < .001).

In a pilot sample of couples coping with SIAD (N = 130), we found that 95.4% of individuals with SIAD reported that they rejected their partners' sexual advances more often than "Never", whereas only 23.8% of partners reported rejecting individuals with SIAD more often than "Never" (Rosen, 2019). Thus, in the interest of reducing participant burden, individuals with SIAD completed the *Perceptions* of Responses to Sexual Rejection Scale and their partners received the Responses to Sexual Rejection Scale. However, if the individual with SIAD reported declining sex "Never" or left the item blank, or if partners reported being declined for sex "Never" or left the item blank, that individual did not receive their respective measure. In these cases, if either member did not complete a measure of responses to sexual rejection, the couple was excluded from the analyses (i.e., regardless of what the other partner reported; n = 22 excluded; see Figure 1 for flow of participant inclusion).

In the community sample, an individual's responses to the frequency of sexual rejection items determined which

responses to sexual rejection measures (i.e., perceived and/or reported) they received. Couple members who reported declining sex or being declined for sex more often than "Never" received the associated scale (i.e., if they reported ever declining sex with their partner, they reported on their perceived responses to sexual rejection, and/or if they reported ever being declined by their partner for sex, they reported on their responses to sexual rejection). As a result, community participants may have completed none, one, or both scales. To be compared to couples in the SIAD sample, only community couples in which a woman and/or AFAB partner completed the perceptions of responses to sexual rejection and whose partner completed the responses to sexual rejection were included (n = 49 excluded; see Figure 1).

#### Responses to Sexual Rejection

Responses to sexual rejection were assessed with two versions of the 16-item Responses to Sexual Rejection Scale (RSRS; Kim et al., 2019). The original version of the scale assesses an individual's own responses to sexual rejection, and an adapted version was created to assess the rejector's perceptions of their partner's responses to sexual rejection. The RSRS includes four, 4-item subscales: understanding (e.g., "I let my partner know I still love them/My partner lets me know they still love me"), resentful (e.g., "I act cold towards my partner/My partner acts cold towards me"), insecure (e.g., "I am upset or sad/ My partner is upset or sad"), and enticing (e.g., "I try initiating sex with my partner again/My partner tries initiating sex with me again"). For each item, participants rate how often in general they engaged, or perceived their partner to engage, in each behavior when sexual rejection occurred on a 5-point Likert scale (1 – Never to 5 – Very frequently). Total scores are calculated by averaging across the four items within each subscale and higher scores indicate higher reported or perceived occurrences of that response to sexual rejection (e.g., understanding). Each RSRS had acceptable internal reliability (Taber, 2018): understanding (individuals with SIAD,  $\alpha = .75$ ; partners of individuals with SIAD,  $\alpha = .67$ ; community women and/or AFAB,  $\alpha = .63$ ; and community partners,  $\alpha = .65$ ), resentful ( $\alpha = .68$ ,  $\alpha = .62$ ,  $\alpha = .69$ , and  $\alpha = .72$ ), insecure ( $\alpha$ = .80,  $\alpha$  = .80,  $\alpha$  = .80, and  $\alpha$  = .80), and enticing ( $\alpha$  = .77,  $\alpha$ = .78,  $\alpha$  = .81, and  $\alpha$  = .83).

#### Sexual Satisfaction

Sexual satisfaction was examined with the 5-item Global Measure of Sexual Satisfaction (GMSEX; Lawrance & Byers, 1995) using 7-point bipolar scales (e.g., very bad to very good; very unpleasant to very pleasant). Participants were asked to report on their overall sexual relationship with their partner. Total scores range from 5 to 35, with higher scores indicating higher sexual satisfaction. The GMSEX has good 3-month testretest reliability (r = .78; Lawrance & Byers, 1995), and showed high internal consistency in our sample (individuals with SIAD,  $\alpha$  = .86; partners of individuals with SIAD,  $\alpha$  = .86; community women and/or AFAB,  $\alpha = .94$ ; and community partners,  $\alpha = .94$ ).

#### Sexual Desire for Partner

Sexual desire was measured using the seven partner-focused items from the 14-item Sexual Desire Inventory-2 (SDI-2;

Spector et al., 1996). Example items include: "During the last month, how often would you have liked to engage in sexual activity with a partner (for example, touching each other's genitals, giving or receiving oral stimulation, intercourse, etc.)?" (scale of 0 - Not at all to 7 - More than once a day) and "When you have sexual thoughts, how strong is your desire to engage in sexual behaviour with a partner?" (scale of 0 - No desire to 8 - Strong desire). Total scores range from 0 to 28, with higher scores indicating higher sexual desire for a partner. The partner-focused sexual desire subscale had good to high internal consistency (individuals with SIAD,  $\alpha = .74$ ; partners

of individuals with SIAD,  $\alpha = .83$ ; community women and/or

AFAB,  $\alpha = .93$ ; and community partners,  $\alpha = .84$ ).

#### **Sexual Distress**

Sexual distress was measured using the 5-item version of the Female Sexual Distress Scale-Revised (FSDS-R; Derogatis et al., 2008), the Sexual Distress Scale-Short Form (SDS-SF; Santos-Iglesias et al., 2020). Participants responded to items examining how often they felt concerns about their sexuality or a sexual problem (e.g., "How often did you feel stressed about sex?") over the past 30 days on a 5-point Likert scale (0 – Never to 4 – Always). Total scores range from 0 to 20, with higher scores indicating greater sexual distress. The abridged, 5-item version of the FSDS-R (SDS-SF) has shown excellent internal reliability previously ( $\omega$  = .88 in women, and .96 in men; Santos-Iglesias et al., 2020), and in our sample (individuals with SIAD,  $\alpha$  = .86; partners of individuals with SIAD,  $\alpha$  = .87; community women and/or AFAB,  $\alpha$  = .89; and community partners,  $\alpha$  = .90).

#### Sexual Frequency

Sexual frequency was assessed using one face-valid item asking how often over the past four weeks the participant engaged in sexual activity (i.e., oral sex, manual stimulation to genitals, intercourse with vaginal penetration, intercourse with anal penetration) with their partner, on a scale of 0 – Not at all to 6 – More than once a day. Couple members' reported sexual frequencies were strongly correlated ( $r_{\rm SIAD}(237) = .73$ , p = .01;  $r_{\rm Community}(103) = .78$ , p = .01). The reported frequencies were averaged, and the resulting value was considered a couple-level variable, with higher scores indicating greater sexual frequency.

#### **Relationship Satisfaction**

Relationship satisfaction was examined using the 4-item Couples Satisfaction Index (CSI-4; Funk & Rogge, 2007). The items examine positive and negative indicators of relationship quality (e.g., "How rewarding is your relationship with your partner?") over the last four weeks. Three items are measured on a 6-point scale (0 – Not at all to 5 – Completely) and one item is measured on a 7-point scale (0 – Extremely unhappy to 6 – Perfect). Total scores range from 0 to 21, with higher scores indicating greater relationship satisfaction. Scores on the CSI-4 have strong convergent and construct validity, in addition to high reliability previously (Funk & Rogge, 2007), and in our sample (individuals with SIAD,  $\alpha$  = .92; partners of individuals with SIAD,  $\alpha$  = .92; community women and/or AFAB,  $\alpha$  = .93; and community partners,  $\alpha$  = .93).

#### **Data Analysis**

Analyses were guided by the Actor-Partner Interdependence Model (Cook & Kenny, 2005) for distinguishable dyads. The individuals with SIAD and the community women and/or AFAB (vs. their respective partners) were the distinguishable variables within the couples. *IBM SPSS Statistics* (Version 28) was used to assess descriptive statistics and correlations. The de-identified data and syntax can be found in the online supplemental materials on OSF: https://osf.io/snv4d/.

#### Comparing Frequency of Responses to Sexual Rejection Across Samples

Our first aim was to test whether individuals with SIAD and their partners would report greater responses to sexual rejection than community sample couple members. This aim was assessed using a linear mixed model fit by restricted maximum likelihood in R. Participant "Role" (i.e., individual with SIAD, partner of individual with SIAD, community women and/or AFAB, and community partner) was the explanatory variable, and the four subscales of the Responses to Sexual Rejection measure (i.e., understanding, resentful, insecure, and enticing) were the outcome variables. Additionally, sexual frequency and frequency of sexual rejection were included separately as covariates in two follow-up models. As participants were nested within couples, the "Couple" variable was included as a random effect, or clustering variable, to account for interdependence of couple members' data. Four separate models were run-one for each of the response types. For each of the models, if the overall F-test of the model was significant (p <.05), this suggested that the participants' role had a statistically significant effect on the respective reported or perceived response to sexual rejection. The potential significant differences between roles - as outlined in our aim - were explored through post-hoc comparisons (e.g., individuals with SIAD compared to community women and/or AFAB). The Bonferroni-Holm correction for multiple comparisons was applied to post-hoc tests, within each type of response to sexual rejection (Holm, 1979).

# Associations Between Responses to Sexual Rejection and Sexual and Relationship Well-Being, and Moderation by Group

Our second aim was to assess whether greater understanding and lower insecure and resentful responses would be associated with greater sexual and relationship well-being for all participants, and our third aim was to determine whether strength of the associations differed by sample. These aims were assessed using multigroup analysis with two groups (i.e., SIAD and community couples) in R using the lavaan() package, following the recommendations outlined by Garcia et al. (2015). Due to power considerations, separate models were created for each of the outcome variables (i.e., sexual satisfaction, sexual desire, sexual distress, sexual frequency, and relationship satisfaction). For each outcome, an unconstrained model (i.e., all path coefficients allowed to freely vary across the two groups) and a constrained model (i.e., all path coefficients set to be equal across the two groups) were created. In total, there were 10 separate models. Each model included

all four independent variables as predictors (i.e., perceived/reported understanding, resentful, insecure, and enticing responses to sexual rejection).

To select which model (constrained vs. unconstrained model) best fit the data for each outcome, the models' Bayesian Information Criterion (BIC) values were compared (Raftery, 1995). For each outcome, the model with the smaller BIC was selected. If model fits were comparable (e.g.,  $\Delta$ BIC <2; Raftery, 1995), the more parsimonious model (i.e., constrained) was selected. If the unconstrained model was determined to fit the data better, this indicated that the two groups differed from one another, and a moderation was present for that outcome variable. If the unconstrained model was deemed to fit the data best for an outcome variable, partial invariance testing was used to evaluate specific paths (e.g., actor effect of individual with SIAD's perceived understanding response to sexual rejection on their own sexual satisfaction). The paths were constrained one at a time in new models and the new model's BIC was compared to the BIC of the fully constrained model to isolate whether a group difference existed for that path. If the BIC value of the new model was smaller than that of the fully constrained model, then this indicated that the two groups differed significantly on that path (i.e., to test our third aim). Once the required model constraints were identified for a particular outcome, significant associations (p < .05) were reported for each group (i.e., to assess our second aim). Alternatively, if the constrained model was deemed to best fit the data, then significant associations between the predictors and outcomes were reported as the same for both groups as no differences would have been identified between the two groups (i.e., to assess our second aim).

#### **Results**

#### **Sample Descriptives**

Descriptive statistics for participant demographics and all variables are in Table 1. Each samples' correlations between and within-individuals for all variables can be found in the supplemental documents on OSF: https://osf.io/snv4d/. The SIAD and community samples did not differ significantly in couple members' genders, relationship duration, or income. The two groups differed significantly as a function of their age, sexual orientation, culture, and years of education. For each model comparison (i.e., constrained vs. unconstrained) the constrained model was considered the best fit for the data. Thus, given that the groups were evaluated as equivalent in the analyses, we did not include these variables as covariates.

#### Comparing Frequency of Responses to Sexual Rejection Across Samples

The descriptive statistics for each of the responses to sexual rejection are found in Table 2. Comparisons of the SIAD and community sample revealed significant effects by role for understanding, F(3,370) = 3.45, p = .02, resentful, F(3,362) = 12.0, p < .001, insecure, F(3,363) = 25.4, p < .001, and enticing responses, F(3,368) = 7.08, p < .001. Specifically, individuals with SIAD perceived lower understanding responses than their own partners reported, t = -3.03,  $p_{holm} = .01$ ; there were

no differences between individuals with SIAD and their partners in the frequency of resentful, insecure, or enticing responses. Individuals with SIAD perceived greater resentful, t=5.16,  $p_{holm}<.01$ , insecure, t=8.08,  $p_{holm}<.01$ , and enticing responses, t=4.49,  $p_{holm}<.01$ , than community women and/ or AFAB perceived, but no differences in understanding responses were found. Partners of individuals with SIAD reported greater resentful, t=3.77,  $p_{holm}<.01$ , insecure, t=2.77,  $p_{holm}<.01$ , and enticing responses, t=2.93,  $p_{holm}<.05$ , than community partners, with no differences in understanding responses. Finally, community women and/or AFAB perceived less resentful, t=-2.77,  $p_{holm}=.01$ , and insecure responses, t=-3.24,  $p_{holm}<.01$ , than community partners reported; there were no differences in enticing or understanding responses.

Controlling for sexual frequency, there were no changes in the significant effects. After controlling for frequency of sexual rejection ( $M_{SIAD} = 3.61$ , SD = 0.76;  $M_{Community} = 2.71$ , SD = 0.77), the following four effects remained significant: individuals with SIAD perceived lower understanding responses than their partners reported, individuals with SIAD perceived greater insecure responses than community women and/or AFAB individuals, and partners of individuals with SIAD reported greater resentful and insecure responses than community partners.

# Associations Between Responses to Sexual Rejection and Sexual and Relationship Well-Being, and Moderation by Group

The BIC values for the constrained and unconstrained models can be found in the supplemental documents on OSF: https://osf.io/snv4d/. For each of the outcomes, the constrained model best fit the data, suggesting that there were no significant differences between the effects of the predictor variables on each of the outcomes between the SIAD and community samples. Therefore, the significant associations are reported as the same for both groups (Table 3).

Understanding Responses to Sexual Rejection. When individuals with SIAD and community women and/or AFAB perceived greater understanding responses, they reported greater relationship satisfaction and their partners reported greater partner-focused sexual desire. When partners of individuals with SIAD and community partners reported greater understanding responses, they also reported greater relationship satisfaction. Understanding responses perceived by individuals with SIAD and community women/AFAB and reported by SIAD and community partners were not significantly associated with their own or their partner's sexual satisfaction, sexual distress, or couple sexual frequency, their own partnerfocused sexual desire, nor their partner's relationship satisfaction. Further, SIAD and community partners' reported understanding responses were not significantly associated with individuals with SIAD and community women/AFAB individuals' partner-focused sexual desire.

Resentful Responses to Sexual Rejection. When individuals with SIAD and community women and/or AFAB perceived greater resentful responses, they also reported lower relationship

**Table 1.** Descriptive statistics for the SIAD (n = 241) and community samples (n = 105).

|                                  | SIAD San                                 | nple                        | Community Sample                   |                          |  |  |
|----------------------------------|--|-----------------------------|------------------------------------|--------------------------|--|--|
|                                  | Individuals with SIAD<br>M ± SD or N (%) | Partners<br>M ± SD or N (%) | Women and/or AFAB  M ± SD or N (%) | Partners M ± SD or N (%) |  |  |
| Age (years)                      | 33.81 ± 9.58                             | 35.17 ± 1.11                | 32.50 ± 8.92                       | 33.15 ± 9.13             |  |  |
| Gender                           |  |                             |                                    |                          |  |  |
| Woman                            | 231 (95.9%)                              | 27 (11.2%)                  | 102 (97.1%)                        | 13 (12.4%)               |  |  |
| Man                              | _  | 205 (85.1%)                 | _                                  | 89 (84.8%)               |  |  |
| Indigenous (e.g., Two-Spirit)    | 2 (.8%)                                  | _                           | _                                  | _                        |  |  |
| Non-binary                       | 14 (5.8%)                                | 9 (3.7%)                    | 4 (3.8%)                           | 4 (3.8%)                 |  |  |
| Additional†                      | 3 (1.2%)                                 | 3 (1.2%)                    | 2 (1.9%)                           | 3 (2.9%)                 |  |  |
| Sexual Orientation               |  |                             |                                    |                          |  |  |
| Asexual                          | 4 (1.7%)                                 | _                           | _                                  | 3 (2.9%)                 |  |  |
| Bisexual                         | 34 (14.1%)                               | 15 (6.2%)                   | 27 (25.7%)                         | 12 (11.4%)               |  |  |
| Gay                              | _  | _                           | 3 (2.9%)                           | 5 (4.7%)                 |  |  |
| Heterosexual                     | 155 (64.3%)                              | 188 (78.0%)                 | 63 (60%)                           | 79 (75.2%)               |  |  |
| Lesbian                          | 11 (4.6%)                                | 16 (6.6.%)                  | 9 (8.6%)                           | 7 (6.7%)                 |  |  |
| Pansexual                        | 17 (7.1%)                                | 8 (3.3%)                    | 11 (10.5%)                         | 3 (2.9%)                 |  |  |
| Queer                            | 12 (5.0%)                                | 7 (2.9%)                    | 15 (14.3%)                         | 9 (8.6%)                 |  |  |
| Questioning                      | 5 (2.1%)                                 | 3 (1.2%)                    | _                                  | 3 (2.9%)                 |  |  |
| Additional†                      | 3 (1.2%)                                 | 2 (.8%)                     | 4 (3.8%)                           | 3 (2.9%)                 |  |  |
| Culture                          |  |                             |                                    |                          |  |  |
| African                          | 2 (.8%)                                  | _                           | 2 (1.9%)                           | _                        |  |  |
| American                         | 8 (3.3%)                                 | 7 (2.9%)                    | 15 (15.2%)                         | 15 (14.3%)               |  |  |
| Biracial/Multiracial             | 5 (2.1%)                                 | 5 (2.1%)                    | 4 (3.8%)                           | 2 (1.9%)                 |  |  |
| Black/African American           | 2 (.8%)                                  | 6 (2.5%)                    | _                                  | 2 (1.9%)                 |  |  |
| East Asian                       | 4 (1.7%)                                 | 4 (1.7%)                    | 2 (1.9%)                           | _                        |  |  |
| English Canadian                 | 101 (41.9%)                              | 100 (41.5%)                 | 69 (65.7%)                         | 73 (69.5%)               |  |  |
| European                         | 29 (12.0%)                               | 26 (1.8%)                   | 13 (12.4%)                         | 8 (7.6%)                 |  |  |
| Hispanic/Latino/Latina/Latinx    | 3 (1.2%)                                 | 10 (4.1%)                   | 5 (4.8%)                           | _                        |  |  |
| Indigenous                       | 8 (3.3%)                                 | 6 (2.5%)                    | 2 (1.9%)                           | 3 (2.9%)                 |  |  |
| Middle Eastern/Central Asian     | 3 (1.2%)                                 | 4 (1.7%)                    | _                                  | _                        |  |  |
| Québécois/French Canadian        | 108 (44.8%)                              | 96 (39.8%)                  | 5 (4.8%)                           | 4 (3.8%)                 |  |  |
| South Asian                      | 2 (.8%)                                  | 5 (2.1%)                    | 4 (3.8%)                           | 3 (2.9%)                 |  |  |
| Southeast Asian                  | 3 (1.2%)                                 | 3 (1.2%)                    | _                                  | _                        |  |  |
| White                            | 72 (29.9%)                               | 70 (29.0%)                  | 51 (48.6%)                         | 46 (43.8%)               |  |  |
| Additional cultures <sup>‡</sup> | 6 (2.5%)                                 | 7 (2.9%)                    | 4 (3.8%)                           | 6 (5.7%)                 |  |  |
| Education (years)                | $16.14 \pm 3.10$                         | 15.05 ± 3.16                | $16.74 \pm 2.66$                   | $15.96 \pm 3.00$         |  |  |
| Length of SIAD (years)           | 7.16 ± 7.77                              | _                           | _                                  | _                        |  |  |
| Relationship Status              |  |                             |                                    |                          |  |  |
| Married/Common-law               | 225 (93.4%)                              |                             | 50 (47.6%)                         |                          |  |  |
| Dating/Engaged                   | 16 (6.6                                  | %)                          | 55 (52.4%)                         |                          |  |  |
| Relationship Length (years)      | $8.61 \pm 7.22$                          |                             | $8.96 \pm 7.50$                    |                          |  |  |
| Combined Annual Income           |  |                             |                                    |                          |  |  |
| \$0-\$39,999                     | 37 (15.4                                 | <b>1</b> %)                 | 11 (1.59                           | %)                       |  |  |
| \$40,000–\$79,999                | 66 (27.4                                 | <b>1</b> %)                 | 29 (27.6                           | %)                       |  |  |
| \$80,000-\$119,999               | 70 (29.0                                 | 0%)                         | 32 (3.5%)                          |                          |  |  |
| >\$120,000                       | 68 (28.2                                 | 2%)                         | 33 (31.4%)                         |                          |  |  |

Participants could select multiple genders, sexual orientations, and cultures, thus, percentages of participants endorsing each response may not add up to 100%. In order to protect confidentiality, cells containing only one participant are not reported on in this table (these individuals are instead reflected in the additional gender, sexual orientation, or culture categories).

‡Additional options provided for culture included: Australian, Native Hawaiian/Other Pacific Islander, and an open-ended response.

satisfaction. When partners of individuals with SIAD and community partners reported greater resentful responses, their partners (individuals with SIAD and community women and/or AFAB) reported lower partner-focused sexual desire. Resentful responses perceived by individuals with SIAD and community women/AFAB and reported by SIAD and community partners were not significantly associated with their own or their partner's sexual satisfaction, sexual distress, or couple sexual frequency, their own partner-focused sexual desire, or their partner's relationship satisfaction. Individuals with SIAD and community women/AFAB's perceived resentful responses were not associated with their partner's partner-focused sexual desire. Finally, SIAD and community partners' reported resentful responses were not significantly associated with their own relationship satisfaction.

Insecure Responses to Sexual Rejection. When individuals with SIAD and community women and/or AFAB perceived greater insecure responses, they also reported greater sexual distress. When partners of individuals with SIAD and community partners reported greater insecure responses, they reported lower sexual satisfaction, greater sexual distress, and lower relationship satisfaction. Insecure responses perceived by individuals with SIAD and community women/AFAB and reported by SIAD and community partners were not significantly associated with their own or their partner's partnerfocused sexual desire or couple sexual frequency, nor their partner's sexual satisfaction, sexual distress, or relationship satisfaction. Additionally, individuals with SIAD and community women/AFAB's perceived insecure responses were not associated with their own sexual or relationship satisfaction.

<sup>†</sup>The additional option provided was an open-ended response.

**Table 2.** Predictor and outcome variable means (M ± SD) and significant differences across SIAD and community samples.

|   | SIAD Sample                     | Community Sample             |                      |                      |  |
|---|---------------------------------|------------------------------|----------------------|----------------------|--|
|   | Women and individuals with SIAD | Partners                     | Women and/or AFAB    | Partners             |  |
| Independent variables                   |                                 |                              |                      |                      |  |
| Understanding responses                 | $3.75 \pm 0.87_{a}$             | $3.91 \pm 0.64_{a}$          | $3.92 \pm 0.85$      | $3.92 \pm 0.74$      |  |
| Resentful responses                     | $1.63 \pm 0.75_{\rm b}^{-}$     | $1.69 \pm 0.65_{c}$          | $1.23 \pm 0.48_{bd}$ | $1.40 \pm 0.60_{cd}$ |  |
| Insecure responses                      | $2.68 \pm 1.03_{\rm e}$         | $2.74 \pm 1.00_{\rm f}^{-2}$ | $1.77 \pm 0.80_{eq}$ | $2.07 \pm 0.91_{fg}$ |  |
| Enticing responses                      | $2.69 \pm 0.92^{-}$             | $2.62 \pm 0.87_{h}^{-1}$     | $2.22 \pm 0.84$      | $2.32 \pm 0.82_{hi}$ |  |
| Covariate                               |                                 |                              |                      |                      |  |
| Sexual rejection frequency <sup>†</sup> | $3.53 \pm 0.91$                 | $3.69 \pm 0.89$              | $1.52 \pm 0.71$      | $2.85 \pm 0.98$      |  |
| Dependent variables                     |                                 |                              |                      |                      |  |
| Sexual satisfaction                     | $21.97 \pm 6.36$                | $24.32 \pm 6.37$             | $28.31 \pm 6.53$     | $28.35 \pm 6.47$     |  |
| Sexual desire for partner <sup>‡</sup>  | $13.16 \pm 7.50$                | $39.42 \pm 7.76$             | $30.54 \pm 12.31$    | $38.06 \pm 8.17$     |  |
| Sexual distress                         | 12.12 ± 4.37                    | $8.06 \pm 4.68$              | $7.20 \pm 4.65$      | $6.49 \pm 4.61$      |  |
| Sexual frequency                        | $1.24 \pm 1.00$                 | $2.15 \pm 1.20$              |                      |                      |  |
| Relationship satisfaction               | 13.98 ± 4.11                    | $13.84 \pm 4.11$             | $16.70 \pm 3.57$     | $16.22 \pm 3.85$     |  |

For the independent variables, means with the same subscript letter indicate a significant difference corresponding to the effects reported for our first hypothesis in the results section (e.g., the subscript "a" indicates a significant difference between individuals with SIAD and community women and/ or AFAB partners' perceived understanding responses). For the independent variables, underlined subscript letters indicate differences that remained significant after controlling for frequency of sexual rejection.

†Individuals with SIAD and community women and/or AFAB's reported frequency of rejecting their partners, and partners' perceived frequency of being rejected.

<sup>‡</sup>Broadly speaking, all samples' perceived and reported resentful, insecure, and enticing responses were positively skewed, while understanding responses, and sexual and relationship satisfaction were negatively skewed. Sexual frequency was positively skewed for couples coping with SIAD, and negatively skewed for community couples. The opposite was seen for frequency of sexual rejection. Individuals with SIAD had positively and negatively skewed data for partner-focused sexual desire and sexual distress, respectively, while all other samples skewed in the opposite direction for those two variables.

Enticing Responses to Sexual Rejection. When partners of individuals with SIAD and community partners reported greater enticing responses, they also reported higher sexual satisfaction and higher partner-focused sexual desire, and the couple reported greater sexual frequency. Enticing responses perceived by individuals with SIAD and community women/AFAB and reported by SIAD and community partners were not significantly associated with their own or their partner's sexual distress or relationship satisfaction, nor their partner's sexual satisfaction or partner-focused sexual desire. Further, individuals with SIAD and community women/AFAB's perceived enticing responses were not associated with their own sexual satisfaction, partner-focused sexual desire, or couple sexual frequency.

#### **Discussion**

This study examined whether responses to sexual rejection differ between and within couples coping with SIAD and community couples, as well as the associations between responses to sexual rejection and sexual and relationship wellbeing in the two samples. Overall, after accounting for the frequency of sexual rejection, individuals with SIAD perceived, and their partners reported, greater resentful and insecure responses to sexual rejection than those in the community sample, and individuals with SIAD perceived less understanding responses than their own partners reported. Further, greater understanding and enticing responses, and lower resentful and insecure responses, were associated with higher sexual and relationship well-being for individuals in both the SIAD and community samples. These results are consistent with the Interpersonal Emotion Regulation Model (Rosen & Bergeron, 2019), which suggests that interpersonal factors such as responses to sexual rejection are key to coping with sexual difficulties.

#### Frequency of Sexual Rejection

Consistent with our first hypothesis, after controlling for the frequency of sexual rejection, individuals in the SIAD sample perceived and reported greater resentful and insecure responses than those in the community sample. These results are in line with qualitative research in which couples reported frequent negative emotions and behaviors, such as anger, frustration, and increased conflict (i.e., resentful), and feeling hurt, sad, and having lower self-esteem (i.e., insecure) in response to low sexual desire and frequent rejection (Frost & Donovan, 2019). Inconsistent with our hypothesis, no significant differences were found between the SIAD and community samples for understanding or enticing responses. Thus, despite couples coping with SIAD reporting negative emotions and experiences in regards to sexual initiation and rejection (Frost & Donovan, 2019), they appear to still be able to draw on adaptive responses to rejection (i.e., understanding) to the same extent as community couples.

However, within the SIAD sample only, individuals with SIAD perceived less understanding responses than their partners reported. One possibility for this difference is that individuals with SIAD may feel intense negative emotions (e.g., guilt, frustration) when declining their partner for sex, and these emotions may spill over to their perceptions of their partners' responses (Clark et al., 2017; Kouros & Papp, 2019), independent of what their partners are communicating or how they are behaving. Indeed, distressed individuals are more likely to recall their partners' negative, neutral, and positive behaviors as more negative than non-distressed individuals (Carrère et al., 2000). It is also possible that women and/or AFAB's socialization toward prioritizing their partner's pleasure may elicit the belief that their partner will not be understanding in the face of sexual rejection (van Anders et al., 2022).



Table 3. Within-person effects of responses to sexual rejection and sexual and relationship well-being.

|                  | 1 – Sexual satisfaction       |      | 2 – Sexual satisfaction |                     | 1 – Sexual desire for partner |                               | 2 – Sexual desire for partner |                               |              |        |      |              |
|------------------|-------------------------------|------|-------------------------|---------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------|--------|------|--------------|
|                  | В                             | SE   | 95% CI                  | В                   | SE                            | 95% CI                        | В                             | SE                            | 95% CI       | В      | SE   | 95% CI       |
| 1 – Perceived re | esponses                      |      |                         |                     |                               |                               |                               |                               |              |        |      |              |
| Understanding    | 0.06                          | 0.50 | -0.39, 1.57             | 0.88                | 0.46                          | -0.02, 1.78                   | -0.44                         | 0.66                          | -1.74, 0.86  | 1.24*  | 0.57 | 0.12, 2.36   |
| Resentful        | 0.28                          | 0.76 | -1.20, 1.76             | -0.37               | 0.70                          | -1.75, 1.01                   | -1.06                         | 0.96                          | -2.94, 0.81  | -0.01  | 0.86 | -1.68, 1.67  |
| Insecure         | -0.62                         | 0.48 | -1.57, 0.33             | 0.49                | 0.45                          | -0.39, 1.36                   | -0.62                         | 0.61                          | 1.82, 0.58   | 0.39   | 0.55 | -0.68, 1.46  |
| Enticing         | -0.06                         | 0.43 | -0.90, 0.79             | -0.08               | 0.40                          | -0.86, 0.69                   | 0.29                          | 0.56                          | -0.81, 1.38  | 0.95   | 0.49 | -0.01, 1.91  |
| 2 - Reported re  | sponses                       |      |                         |                     |                               |                               |                               |                               |              |        |      |              |
| Understanding    | 0.79                          | 0.60 | -0.38, 1.95             | 0.24                | 0.54                          | -0.83, 1.30                   | -0.48                         | 0.81                          | -2.07, 1.11  | 0.98   | 0.69 | -0.36, 2.33  |
| Resentful        | -1.04                         | 0.79 | -2.60, 0.51             | -1.19               | 0.73                          | -2.62, 0.24                   | -2.35*                        | 1.03                          | -4.36, -0.33 | 1.37   | 0.90 | -0.40, 3.14  |
| Insecure         | -0.09                         | 0.47 | -1.01, 0.84             | -2.26*              | 0.44                          | -3.12, -1.41                  | 0.53                          | 0.60                          | -0.64, 1.71  | 0.86   | 0.53 | -0.18, 1.91  |
| Enticing         | 0.01                          | 0.45 | -0.88, 0.90             | 0.90*               | 0.42                          | 0.08, 1.72                    | 0.99                          | 0.59                          | -0.17, 2.14  | 2.67*  | 0.52 | 1.65, 3.68   |
|                  | 1 – Sexual distress           |      | 2                       | 2 – Sexual distress |                               | 1 – Relationship satisfaction |                               | 2 – Relationship satisfaction |              |        |      |              |
|                  | В                             | SE   | 95% CI                  | В                   | SE                            | 95% CI                        | В                             | SE                            | 95% CI       | В      | SE   | 95% CI       |
| 1 – Perceived re | esponses                      |      |                         |                     |                               |                               |                               |                               |              |        |      |              |
| Understanding    | 0.25                          | 0.35 | -0.43, 0.93             | -0.40               | 0.30                          | -1.00, 0.19                   | 1.04*                         | 0.27                          | 0.51, 1.57   | 0.40   | 0.26 | -0.12, 0.91  |
| Resentful        | -0.25                         | 0.52 | -1.26, 0.77             | -0.49               | 0.46                          | -1.38, 0.42                   | -0.84*                        | 0.42                          | -1.67, -0.02 | -0.11  | 0.40 | -0.90, 0.68  |
| Insecure         | 0.98*                         | 0.33 | 0.34, 1.63              | 0.38                | 0.29                          | -0.20, 0.95                   | -0.31                         | 0.27                          | -0.84, 0.21  | 0.35   | 0.26 | -0.15, 0.85  |
| Enticing         | 0.43                          | 0.30 | -0.15, 1.01             | 0.05                | 0.26                          | -0.46, 0.56                   | -0.27                         | 0.24                          | -0.73, 0.19  | 0.14   | 0.23 | -0.30, 0.59  |
| 2 - Reported re  |                               |      | , ,                     |                     |                               |                               |                               |                               | ,            |        |      | ,            |
| Understanding    | -0.23                         | 0.41 | -1.04, 0.58             | -0.04               | 0.36                          | -0.75, 0.67                   | 0.34                          | 0.32                          | -0.29, 0.97  | 0.91*  | 0.31 | 0.30, 1.51   |
| Resentful        | 0.33                          | 0.55 | -0.74, 1.40             | 0.13                | 0.48                          | -0.81, 1.08                   | -0.77                         | 0.44                          | -1.62, 0.09  | -0.14  | 0.42 | -0.96, 0.67  |
| Insecure         | 0.18                          | 0.32 | -0.46, 0.81             | 2.58*               | 0.29                          | 2.02, 3.14                    | -0.08                         | 0.26                          | -0.59, 0.43  | -2.06* | 0.25 | -2.55, -1.57 |
| Enticing         | -0.50                         | 0.31 | -1.11, 0.12             | -0.08               | 0.28                          | -0.62, 0.46                   | 0.15                          | 0.25                          | -0.34, 0.63  | 0.04   | 0.24 | -0.43, 0.50  |
|                  | Sexual frequency <sup>†</sup> |      |                         |                     | ,                             |                               |                               | ,                             |              |        | ,    |              |
|                  | В                             | SE   | 95% CI                  |                     |                               |                               |                               |                               |              |        |      |              |
| Understanding    | 0.05                          | 0.07 | -0.10, 0.19             |                     |                               |                               |                               |                               |              |        |      |              |
| Resentful        | 0.13                          | 0.11 | -0.08, 0.34             |                     |                               |                               |                               |                               |              |        |      |              |
| Insecure         | -0.01                         | 0.07 | -0.14, 0.13             |                     |                               |                               |                               |                               |              |        |      |              |
| Enticing         | 0.02                          | 0.06 | -0.01, 0.15             |                     |                               |                               |                               |                               |              |        |      |              |
| 2 – Reported re  | sponses                       |      |                         |                     |                               |                               |                               |                               |              |        |      |              |
| Understanding    | -0.04                         | 0.09 | -0.21, 0.13             |                     |                               |                               |                               |                               |              |        |      |              |
| Resentful        | 0.11                          | 0.11 | -0.12, 0.33             |                     |                               |                               |                               |                               |              |        |      |              |
| Insecure         | -0.35                         | 0.18 | -0.69, 0.01             |                     |                               |                               |                               |                               |              |        |      |              |
| Enticing         | 0.23*                         | 0.07 | 0.10, 0.35              |                     |                               |                               |                               |                               |              |        |      |              |

<sup>1</sup> represents individuals with SIAD and community women/AFAB who perceived responses to sexual rejection, 2 represents partners of individuals with SIAD and community partners who reported responses to sexual rejection.

On the other hand, partners of individuals with SIAD may report that they are responding in a more understanding way than they truly are. For example, they may verbally communicate an understanding response while non-verbally communicating frustration or disappointment; non-verbal cues are often less filtered than verbal cues (Guerrero & Floyd, 2006). After controlling for frequency of sexual rejection, no other differences were observed within-couples regarding frequency of enticing, resentful or insecure responses, suggesting that couples' experiences of these responses are relatively similar to each other.

#### Associations Between Sexual Rejection and Well-Being

In both samples, when individuals with SIAD and community women and/or AFAB perceived greater understanding responses, they reported greater relationship satisfaction and their partners reported greater partner-focused sexual desire. When partners of individuals with SIAD and community partners reported greater understanding responses, they also

reported greater relationship satisfaction. These results are in line with previous research in couples coping with SIAD, which found that greater perceived or reported positive partner responses - which include understanding, but also other affective responses such as being loving and sensitive - to women's low sexual interest/arousal were associated with their own greater relationship satisfaction (Rosen et al., 2020). Understanding responses to sexual rejection may foster a more secure relational environment for both couple members, promoting more adaptive emotion regulation, and, in turn, relationship satisfaction (Reis & Clark, 2013; Rosen & Bergeron, 2019). As the results are correlational, it is also possible that partners who report greater relationship satisfaction may be more likely to display understanding responses to sexual rejection (Barnes et al., 2007).

When individuals with SIAD and community women and/ or AFAB perceived greater resentful and insecure responses, they reported lower relationship satisfaction and greater sexual distress, respectively. When partners of individuals with SIAD and community partners reported greater insecure responses,

<sup>\*</sup>bolded font denotes results significant at p < .05.

B = unstandardized betas; SD = posterior standard deviation; CI = credible interval.

<sup>&</sup>lt;sup>†</sup>Sexual frequency is a couple-level variable.

they also reported lower sexual and relationship satisfaction, and greater sexual distress. When partners reported greater resentful responses, their partners (i.e., individuals with SIAD and community women and/or AFAB) reported lower partner-focused sexual desire. These results are consistent with previous findings that greater negative responses (e.g., hostility, frustration) were associated with poorer sexual and relationship well-being for women coping with sexual dysfunctions (Rosen et al., 2010, 2014), and lower relationship satisfaction in community samples (Falconier et al., 2015; Holman & Jarvis, 2003). Additionally, negative emotions (e.g., those elicited by perceiving resentful partner responses) have been linked to reduced sexual desire, especially for women (Scimeca et al., 2011). Regarding insecure responses, it is possible that individuals who display greater insecure responses to sexual rejection may have an overall insecure attachment style. Research has shown that insecure attachment styles are associated with one's own and one's partner's lower sexual satisfaction (Brassard et al., 2012; Valdez et al., 2021), and one's own poorer sexual functioning and greater sexual distress (Dang et al., 2018). Taken together, resentful and insecure responses may heighten sensitivity and reactivity from both couple members to current and possible future sexual rejection, eliciting less effective emotion regulation strategies such as avoidance or emotional outbursts that are associated with poorer sexual and relationship outcomes (Rosen & Bergeron, 2019).

Finally, when partners reported attempting to initiate sex again following rejection (i.e., enticing responses), they also reported greater sexual satisfaction and partner-focused sexual desire, and the couple reported greater sexual frequency. Given the correlational nature of these findings, it may be that partners who experience greater sexual satisfaction, partnerfocused sexual desire, and sexual frequency are more likely to be sexually assertive and re-initiate sexual activity following rejection (Santos-Iglesias et al., 2013). Importantly, however, enticing responses have been associated with trait narcissism (Kim et al., 2019). Additionally, within our findings, there were no observed benefits for individuals with SIAD and community women/AFAB of their partners engaging in enticing responses. It is possible that partners who report engaging in more enticing responses do so to meet their own needs while not considering those of their partners (consistent with narcissistic behaviors; Bushman et al., 2003; Zeigler-Hill et al., 2013). Further investigation is necessary regarding the motivations for enticing responses and how these responses are experienced by their partners (e.g., coercion) before any conclusions can be drawn regarding their implications for couples.

#### No Differences Between Samples in the Associations Between Sexual Rejection Responses and Well-Being

Regarding our final aim, we did not identify any significant differences between the SIAD and community samples when comparing the strength of the effects of responses to sexual rejection on sexual and relationship well-being. It is possible that relationship-promoting (e.g., understanding), relationship-interfering (e.g., resentful, insecure), and enticing responses to sexual rejection have similar implications for well-being, independent of a diagnosis of SIAD. Thus, although partners affected by SIAD may feel frustration or hopelessness following repeated sexual rejection (Frost & Donovan, 2019), our findings suggest that the implications of how partners respond to that rejection are similar to community couples. It could also be that we did not find differences due to limited power. As our final aim was exploratory, our sample size was determined for the first and second aims only. Further, individuals in the community sample were not screened for clinically significant difficulties with low sexual desire. Given the prevalence of sexual desire difficulties (8% to 23%; West et al., 2008; Witting et al., 2008), as well as other sexual problems in the general population, it is possible that potential differences between the samples were diluted.

Still, our results indicate that responses to sexual rejection have important implications for couples coping with SIAD. Researchers have previously recommended shifting the clinical perspective from one couple member's low sexual desire to the dyadic level, viewing the individuals with low sexual desire within the context of their relationship and socialized gender norms rather than pathologizing them (Davies et al., 1999; Girard & Woolley, 2017; Prekatsounaki et al., 2022; van Anders et al., 2022). Further, partners of individuals with low sexual desire have reported feeling distressed about the challenges they have encountered in trying to help their partner increase their sexual desire (Frost & Donovan, 2019). Responses to sexual rejection can provide a novel avenue by which clinicians may shift focus from individuals with SIAD and engage their partners in treatment, while building partners' self-efficacy regarding their contributions to the couples' sexual and relationship wellbeing.

#### Strengths, Limitations, and Future Directions

To our knowledge, this was the first study to compare the frequency of responses to sexual rejection among couples coping with SIAD and community couples, and to assess their associations with sexual and relationship well-being. Key strengths of this study were its focus on how partners' responses to sexual rejection have implications for both members of the couples, and the dyadic analysis which accounted for the interdependence of couple members' responses. Our results contribute to a shift away from placing the burden of SIAD on the individual with SIAD, and toward a couple-based approach. Additionally, all couple members presenting with complaints of low sexual desire in the SIAD sample were assessed by trained clinical researchers and received diagnoses of SIAD. While the SIAD diagnosis has been critiqued as a pathologization of desire differences (e.g., Thomas & Gurevich, 2021), receiving a diagnosis indicates the presence of clinically significant distress (Meana et al., 2015) and facilitates access to treatment (Parish & Hahn, 2016). This is an important strength, as a previous study of women living with low sexual desire determined that over two-thirds of participants were not aware that distressing low sexual desire was treatable and had never mentioned their sexual challenges to a health care provider (Kingsberg, 2014). Requiring our sample with low



desire to meet diagnostic criteria also enhanced our study's internal validity. Further, we captured data from couples without majoritized identities (i.e., individuals identifying as non-heterosexual [22-40%] and in diverse gender/sex relationships [16-17%]), who are often excluded and/or underrepresented in dyadic studies.

Our results may be less applicable to individuals in lower income brackets and from cultural minorities, including those with less access, or ability, to complete an advanced online survey. Given cultural variations in the values, expectations, and priorities assigned to couple members' sexual pleasure, rights, and gender norms and expectations (Hall, 2019; van Anders et al., 2022), future research should examine responses to sexual rejection within individuals with cultural beliefs that include differing views of sexuality and norms. Additionally, we did not have information about whether the participants in the SIAD sample were in monogamous relationships, which may have implications for the value and importance placed on their sexual relationship with the participating partner.

Our study data were correlational, and we cannot confirm directionality. Future research should collect longitudinal data and utilize methods that will allow for appropriate tests of causality. While the reliability of the subscale scores for the Responses to Sexual Rejection Scale were acceptable (Taber, 2018), some were lower than those identified in the original validation study. It is possible that the relationships between the predictor and outcome variables were underestimated in those analyses. Also, within the Interpersonal Emotion Regulation Model (Rosen & Bergeron, 2019), responses to sexual rejection may be considered a proximal factor (i.e., immediately following the initiation attempt). However, with a cross-sectional design, our results may reflect more pervasive relationship patterns stemming from distal factors (e.g., attachment, past trauma, personality traits). Additional work on distal factors may be warranted to better understand the relationship dynamic unfolding in couples coping with SIAD and their impacts on sexual and relationship well-being. Further, the responses to sexual rejection assessed in this study were identified in community samples (Kim et al., 2019). It may be that there are additional responses to sexual rejection that are specific to couples coping with SIAD.

#### **Conclusion**

The present study established how a novel interpersonal factor - responses to sexual rejection - differed in frequency and strength of associations with sexual and relationship wellbeing among couples coping with SIAD and community couples. This novel factor offers a new target for interventions (e.g., psychoeducation) for couples experiencing SIAD, sexual desire discrepancies, and recurrent sexual rejection, which have been associated with lower sexual and relationship wellbeing for both couple members (Byers & Heinlein, 1989; Mark, 2015; Rosen et al., 2019). Specifically, interventions may be aimed at informing couples of how more understanding and less resentful and insecure responses to sexual rejection contribute to sexual and relationship well-being. Through the use

of emotionally focused or cognitive-behavioral interventions for treating sexual desire discrepancies (e.g., Girard & Woolley, 2017), clinicians may encourage couples to reflect on their emotional responses to experiencing sexual rejection, and consider shifting their interactional patterns to reduce negative (e.g., resentful, insecure) responses to sexual rejection and consider more helpful (e.g., understanding) responses at

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