

When sexual distress shares the bed: the role of sexual self-esteem in the relationship between dispositional mindfulness and sexual distress in sex therapy patients

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Abstract

Background: Sexual distress (eg, feeling distressed, unhappy, frustrated, stressed, dissatisfied, or bothered about their sexuality) is a central concern reported by patients seeking sex therapy, and might be related to sexual self-esteem and mindfulness disposition, yet research is needed to examine the links among those variables within the specific population of patients seeking therapy.

Aim: This study aimed to examine the indirect role of sexual self-esteem in the relationship between dispositional mindfulness and sexual distress.

Methods: The study was conducted among 696 patients undergoing sexual therapy (mean age 34.19 ± 11.21 years, age range 18–78 years). Participants identified as women (57.3%), men (38.5%), or nonbinary (4.2%). They completed self-report questionnaires assessing dispositional mindfulness (Five Facet Mindfulness Questionnaire), sexual self-esteem (Multidimensional Sexuality Questionnaire), and sexual distress (Sexual Distress Scale–Revised), during their first few sessions (ie, first to third sessions [the assessment phase]).

Outcomes: Sexual distress was the main outcome, as measured with the Sexual Distress Scale–Revised.

Results: Results indicated that 54% ($n = 376$) of patients reported elevated sexual distress based on the questionnaire threshold score. Path analyses indicated an indirect effect in which higher dispositional mindfulness was associated with higher levels of sexual self-esteem, which in turn was associated with lower sexual distress. Results also highlighted that specific facets of mindfulness were related to higher sexual self-esteem (ie, describing, and nonreacting) and lower sexual distress (ie, nonjudgment and acting with awareness). The integrative model explained 23% of the variance of sexual distress scores.

Clinical Implication: Findings suggest that addressing specifically sexual self-esteem and mindfulness may represent relevant clinical avenues to reduce sexual distress among sex therapy patients.

Strengths and Limitations: Strengths of this study include the novel examination of the role of sexual self-esteem in the link between mindfulness disposition and sexual distress in a large clinical sample of patients seeking sex therapy. Limitations includes reliance on patient self-report and a cross-sectional design that limit conclusion regarding causality.

Conclusion: This study makes a valuable contribution to the existing body of research highlighting the pivotal roles of sexual self-esteem in the link between dispositional mindfulness and reduced sexual distress among adults undergoing sex therapy, allowing us to identify potential targets of intervention.

Keywords: mindfulness; sexual self-esteem; sexual distress; sex therapy.

Am I good in bed? The role of sexual self-esteem in the relationship between mindfulness and sexual distress in adulthood

Sexual distress is defined as sexually related distress including feeling distressed, unhappy, frustrated, stressed, dissatisfied or bothered about their sexuality,¹ and it is frequently reported by patients seeking sex therapy (ie, patients seeking treatment for sexual problems, including sexual dysfunctions, discomfort with sexual intimacy, processing sexual trauma, nurturing their sexual selves, and enhancing their capacity to communicate about sex).^{1,2} According to the DSM-5,³ distress is indeed one of the main aspects considered in examining sexual problems. The presence of distress is crucial for the diagnosis of a sexual problems, as it helps differentiate between normal variations in sexual functioning and clinically significant sexual difficulties. Distress indicates that the issue is causing emotional or psychological discomfort to the individual,

which may require clinical attention and intervention. Studies show that the experience of sexual distress can have profound effects on individuals' mental, relational, and sexual well-being, leading to issues such as anxiety, depression, conflicts in relationships, sexual dysfunctions, and a diminished overall quality of life.^{4,5} By studying sexual distress, researchers can gain valuable insights that can inform clinical practice and contribute to the development of evidence-based interventions, to promote sexual well-being and overall psychological health.

Dispositional mindfulness and sexual distress

Over the past decade, dispositional mindfulness has been a topic of interest in research exploring psychological factors that influence sexual well-being.⁶ Dispositional mindfulness refers to a state of nonjudgmental awareness of the present

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moment, including one's thoughts, feelings, bodily sensations, and the surrounding environment.⁷ It involves accepting experiences as they unfold without trying to change or avoid them.⁸ Five facets of dispositional mindfulness have been documented.^{9,10} Observation involves paying attention and noticing experiences and stimuli that are taking place in the present moment, such as bodily sensations, thoughts, and emotions, as well as external experiences such as the surrounding environment, places, sounds, and smells.^{9,10} Description refers to the ability to articulate and verbalize internal experiences.^{9,10} Acting with awareness involves paying attention to and participating fully in the present moment with focus and concentration.^{9,10} It refers to doing one thing at a time with full attention. Nonjudgment of inner experience involves adopting a nonevaluative and noncritical stance toward one's thoughts, emotions, and sensations as they occur in the present moment documented.^{9,10} Finally, nonreactivity pertains to the ability to allow emotions and thoughts to come and go, without being overwhelmed by them.^{9,10}

Lower levels of dispositional mindfulness may be related to sexual distress, as individuals with lower levels of dispositional mindfulness may experience difficulties in paying attention to their bodily, sensual, or sexual sensations without judgment, or to managing negative emotions, such as anxiety, guilt, or shame, that might then invade their sexual life and sense of self.^{11,12} Individuals with lower levels of dispositional mindfulness may also be more prone to rumination and self-judgment, amplifying distressing feelings and interfering with their sexual well-being.¹³ Additionally, a lack of present moment awareness during sexual encounters, stemming from lower mindfulness, can lead to distractions, reduced enjoyment, and difficulties in connecting with their own bodies and sensations, contributing to dissatisfaction or distress.^{14,15} Furthermore, reduced levels of mindfulness have been linked to impaired communication, diminished empathy, and limited self-acceptance.¹¹ These factors can hinder effective sexual communication, hinder understanding of one's own and their partner's needs, and limit self-compassion (ie, treating oneself with warmth and understanding), thereby exacerbating sexual distress.^{16,17}

Empirical studies showed that higher dispositional mindfulness is associated with greater body awareness and self-reported sexual function.^{13,18,19} In men, higher dispositional mindfulness has been associated with greater sexual desire and lower hypersexuality.^{14,20} Stephenson and Welch²¹ also found that more dispositional mindfulness correlated with less sexual distress and premature ejaculation, as well as with more sexual satisfaction. Another study showed that the facets, namely lower nonjudgment and acting with mindfulness, were specifically associated to more sexual distress.¹⁶ While these studies have provided valuable insights into the associations between dispositional mindfulness and sexual well-being, there is a lack of research in clinical populations seeking sex therapy, and the potential mechanisms linking dispositional mindfulness to sexual distress.

The role of sexual self-esteem in the link between dispositional mindfulness and sexual distress

Sexual self-esteem refers to an individual's tendency to feel confident as a sexual partner and their own sexual skills, and their own sense of value as a sexual partner.²² Studies have

highlighted the importance of sexual self-esteem in sexual functioning and satisfaction.²³⁻²⁵ Lower sexual self-esteem might, on the contrary, be related to a person's experience of sexual distress, as their perception of lack of worth and value in the context of sexuality may be related to discomfort and negative self-consciousness, increasing sexual distress. In the current study, we postulate that sexual self-esteem may act as a mediator between dispositional mindfulness and sexual distress. This postulate aligns with the theoretical framework suggesting that dispositional mindfulness fosters self-awareness, nonjudgment and acceptance, promoting a positive self-perception that, in turn, may reduce negative outcomes such as sexual distress.^{6,11,13,14,26,27}

More precisely, higher levels of dispositional mindfulness might be associated with higher sexual self-esteem because of mindfulness-related self-awareness, self-acceptance, and self-compassion,^{12,16} which in turn might be related to lower sexual distress.^{11,28,29} Precisely, higher levels of dispositional mindfulness may promote higher sexual self-esteem and lower sexual distress due to various interconnected factors. Dispositional mindfulness encourages a nonjudgmental awareness of thoughts, emotions, and bodily sensations, fostering greater body acceptance and self-compassion.^{6,12,30,31} This, in turn, may allow individuals to feel more positively about their bodies and sexual experiences, reducing distress related to body image concerns. Moreover, being fully present during sexual encounters can increase sexual awareness and pleasure, positively impacting sexual self-esteem. Furthermore, the mind-body connection fostered by dispositional mindfulness can promote a sense of wholeness and integration in sexual experiences, cultivating a positive view of oneself and sexual encounters, ultimately reducing distress. On the contrary, individuals with lower dispositional mindfulness may struggle with negative self-judgment, self-doubt, and self-criticism, which can be associated to lower sexual self-esteem, potentially leading to more sexual distress.^{6,11,13,14,26,27}

Therefore, it is possible that mindfulness acts as a predictor of sexual distress through sexual self-esteem. Dispositional mindfulness reflects a person's general tendency to be mindful in various aspects of life and may act as a predictor due to its conceptualization as a stable trait that individuals possess consistently over time. It might be associated to sexual self-esteem, considered as a trait that may be influenced by other variable (ie, dispositional mindfulness). Sexual distress pertains to experiences of feeling distressed, unhappy, frustrated, stressed, dissatisfied, or bothered about their sexuality in the past month, capturing a more recent and dynamic aspect of sexual well-being. Studying an integrative model of dispositional mindfulness, sexual self-esteem and sexual distress might allow to understand how current levels of sexual distress may be shaped by factors such as dispositional mindfulness and sexual self-esteem.

Although the hypothesized role of sexual self-esteem in the link between dispositional mindfulness and sexual distress needs to be empirically examined, empirical studies support these postulates. Lafortune et al²⁷ found that dispositional mindfulness was associated with sexual self-esteem, with the specific facet of nonjudgment being linked to lower sexual self-esteem in a sample from the community. Similarly, Leavitt et al²⁶ also reported a correlation between lower levels of sexual dispositional mindfulness and reduced sexual self-esteem. Guyon et al³² found that a higher level of dispositional mindfulness was linked to a more positive sexual self-concept.

The authors concluded that individuals who displayed higher levels of dispositional mindfulness in their daily lives exhibited a more positive self-perception as sexual partners. They also demonstrated an increased ability to distance themselves from the pressure of sexual performance and reported lower levels of rumination and negative thoughts about themselves in a sexual context.³²

Previous studies on dispositional mindfulness, sexual self-esteem, and sexual distress have limitations that we considered for this study, such as having samples that were exclusively women,¹⁵ women involved in a relationship,¹⁵ or sexually active men in relationships,²¹ or did not study patients seeking sex therapy,^{12,15,16,21-24} which might limit the generalization of the findings to the population of adults seeking sex therapy. Additionally, previous studies also used dispositional mindfulness measures that did not allow for an examination of specific dispositional mindfulness facets³² or used sexual dispositional mindfulness measures,^{26,33} both of which may not fully capture the broader dispositional mindfulness.

The present study

The present study aimed to bridge gaps in the existing literature by investigating the relationship between dispositional mindfulness (overall dispositional mindfulness and its 5 facets), sexual self-esteem, and sexual distress among patients consulting in sex therapy. While prior research has examined the associations of dispositional mindfulness with well-being and sexual self-esteem, there is a lack of specific studies examining how these variables interact within the specific population of patients seeking sex therapy, who are at risk to experience significant levels of sexual distress. Our study sought to provide valuable insights into the potential roles of dispositional mindfulness and sexual self-esteem in the experience of sexual distress in this specific population. Additionally, this study aimed to examine the individual facets of dispositional mindfulness, offering a more comprehensive understanding of their relevance concerning sexual self-esteem and sexual distress. Drawing upon previous research showing the mediating role of sexual self-esteem between dispositional mindfulness and various outcomes (mental health, well-being),^{33,34,35} we hypothesized that dispositional mindfulness would be associated to higher sexual self-esteem, which, in turn, would be associated with lower sexual distress.

Method

Participants and procedure

Participants were patients seeking sex therapy recruited from May 2017 to May 2022 in the region of Québec, Canada. Most of the patients (83%) were consulting sex therapy interns providing sexual psychotherapy working in various settings (ie, private clinics, hospitals, family medicine clinics, community clinics, and specialized clinics), while 17% were consulting licensed sex therapists (ie, psychologists or sexologists). Patients were systematically invited by their therapist to complete a self-reported questionnaire via the secure Qualtrics platform (approximately 90 minutes to complete) during their first sessions (ie, during their first, second or third session [evaluation phase]). A summary of each participant's responses was sent to their therapist to support the evaluation and tailor their intervention, with the written agreement of the patient. Patients were assured that their decision to participate

or decline participation in the study would not impact their access or the quality of the care they received. Inclusion criteria were to be seeking sex therapy, being able to complete the questionnaire in French or English, being at least 18 years of age, and completing at least 70% of the measures of interest. Of the 737 participants who consented to participate, 94.4% (n = 696) completed the study questionnaires. They reported varied consultations motives including sexual difficulties (eg, preoccupation, anxiety), sexual dysfunctions (eg, low sexual desire, genital pain, erectile difficulties), relationship problems (eg, attachment insecurities, couple dissatisfaction), and effects of interpersonal victimization (eg, childhood sexual abuse).

All procedures performed in studies involving human participants were done in accordance with the ethical standards of the institutional and/or national research committee, and in accordance with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This study was approved by the institutional review board for research involving human subjects of the Université du Québec à Montréal. Informed consent was obtained from all participants in the study.

Measures

Sociodemographic characteristics

Sociodemographic characteristics were collected on age, gender identity, sexual orientation, education, country of birth, individual annual income, occupation, and relationship status.

Dispositional mindfulness

Dispositional mindfulness was assessed using the Five Facet Mindfulness Questionnaire.^{10,35} This questionnaire comprises 24 items on a 5-point Likert scale ranging from 1 (*never or very rarely true*) to 5 (*very often or always true*), forming a total score and 5 subscales: observation (4 items; $\alpha = 0.78$),³⁵ description (5 items; $\alpha = 0.88$),³⁵ acting with awareness (5 items; $\alpha = 0.89$),³⁵ nonjudgment (5 items; $\alpha = 0.89$),³⁵ and nonreactivity (5 items; $\alpha = 0.76$).³⁵ Total scores (ie, a total score and scores for each of the 5 subscales) are calculated using the sum of the corresponding items (range 4-25 for the subscales and 38-112 for the total score) ($\alpha = 0.88$).³⁵ Higher scores reflect higher mindfulness disposition. Internal consistency was satisfactory in the current study ($\alpha = 0.76-0.86$).

Sexual self-esteem

Sexual self-esteem was measured using the 5-item sexual self-esteem subscale of the Multidimensional Sexuality Questionnaire (French validation by Ravart et al).^{36,37} Items (eg, "I am confident about myself as a sexual partner") are rated on a 5-point Likert scale ranging from 1 (*not at all characteristic of me*) to 5 (*very characteristic of me*). The total score (range 0-20) is computed using the total sum, in which a score above 13 represents an above average level of sexual self-esteem ($\alpha = 0.87$).³⁶ The internal consistency of the sexual self-esteem subscale was excellent in the current study ($\alpha = 0.92$).

Sexual distress

Sexual distress was assessed using the 13-item Sexual Distress Scale-Revised.^{1,5,38} Although the original scale was designed to assess female sexual distress, the revised version uses gender-neutral language without reference to sexual organs or characteristics and was validated in male samples showing

satisfactory psychometric qualities (women: $\alpha = 0.86$; men: $\alpha = 0.91$).^{1,5,38} Items (eg, “How often did you feel sexually inadequate”) assess the level of sexual distress on a 5-point Likert scale ranging from 0 (*never*) to 4 (*always*), during the last 30 days. The total score is calculated using the sum divided by 2 (range 0/26), and a score equal or over 11 reflects elevated distress.^{1,39} Internal consistency is satisfactory in the current study ($\alpha = 0.94$).

Data analytical strategy

Descriptive analyses and correlations were conducted using SPSS v28 (IBM) the sample distribution, means, standard deviations, Cronbach's α , and associations between all study variables. The hypothesized path analysis models were then tested in Mplus v. 8.4,⁴⁰ which is robust to non-normality and nonindependence through the use of maximum likelihood estimation with robust standard errors and accounted for missing data (<5%) using the full information maximum likelihood. Model fit was examined using the chi-square statistic and the ratio of chi-square to degrees of freedom (χ^2/df), root mean square error of approximation (RMSEA),⁴¹ standardized root mean square residual (SRMR), comparative fit index (CFI),⁴² and Tucker/Lewis index (TLI).⁴³ Goodness of fit of the theorized model was determined by the combination of a nonsignificant chi-square statistic ($P < .05$) and a χ^2/df ratio <3, an RMSEA value <0.06, an SRMR value <0.08, and CFI and TLI values >0.90.⁴⁴⁻⁴⁷

To examine the indirect role of sexual self-esteem between dispositional mindfulness and sexual distress, direct effects (ie, path coefficient from dispositional mindfulness to sexual distress) and indirect effects (ie, the product of the path coefficients from dispositional mindfulness to sexual self-esteem, and from sexual self-esteem to sexual distress) were then computed using 95% bootstrap confidence intervals (CIs).^{47,48} The model was first tested using the dispositional mindfulness total score, and then retested using the 5 facets. For all tested pathways, standardized direct, specific indirect, total indirect, and total effects were estimated. To assess whether the associations were robust to potential confounds, age, education, gender, individual annual income, and relationship status were entered as covariates in both models.

Results

Descriptive statistics

The final sample for this study comprised 696 sex therapy patients, between 18 and 78 years of age (mean age 34.19 \pm 11.21 years). Sociodemographic characteristics are presented in Table 1. Descriptive results showed that the majority of participants identified as cisgender (95.3%), while 4.7% identified as trans, nonbinary, or other gender identities, such as intersex. Regarding relationship status, 72.6% of the participants were currently in a relationship, while 26.3% were single.

Correlations, means, and standard deviations are reported in Table 2. Correlation analyses showed statistically significant intercorrelations between 3 of the 5 facets of dispositional mindfulness (ie, description, acting with awareness, and nonreactivity), sexual self-esteem, and sexual distress in the expected directions (ie, positively correlated with sexual self-esteem, negatively correlated with sexual distress). The remaining facets of dispositional mindfulness (ie, nonjudgment and observation) were not significantly correlated with

Table 1. Sociodemographic characteristics (n = 696).

Characteristics	n	%
Gender		
Men	268	38.5
Women	399	57.3
Other (eg, nonbinary, fluid)	25	4.2
Sexual orientation		
Heterosexual	526	75.6
Lesbian	9	1.3
Gay	20	2.9
Bisexual/pansexual	73	10.5
Flexible	25	3.6
Queer	32	4.6
Asexual	11	1.6
Age group		
18-34 y	423	60.8
35-49 y	189	27.2
50 y and older	84	12.1
Birthplace		
Canada	580	83.3
United States	2	.3
Europe	50	7.2
Central or South America	19	2.7
Asia	18	2.6
Caribbean	8	1.1
Africa	13	1.9
Other or missing	2	.3
First language		
French	611	87.8
English	29	4.2
Spanish	19	2.7
Other (eg, Creole, German, Arabic)	35	5.0
Occupation		
Student	174	25.0
Full- or part-time worker	470	67.5
Retired	13	1.9
Currently unemployed	19	2.7
Other (eg, stay at home, living with health conditions or impairments)	18	2.6
Education		
Primary school	7	1.0
High school	88	12.6
College/professional	243	34.9
Undergraduate	273	39.2
Graduate	82	11.8
Individual annual income		
CAD\$19 999 or less	201	28.9
CAD\$20 000-CAD\$39 999	176	25.3
CAD\$40 000-CAD\$59 999	144	20.7
CAD\$60 000-CAD\$79 999	80	11.5
CAD\$80 000 or more	80	11.5

sexual self-esteem, but nonjudgment was significantly and negatively correlated with sexual distress. Moreover, in our sample, 54% (n = 376) of participants reported clinical level of sexual distress based on the measure's cutoff score.¹

Main data analyses: dispositional mindfulness, sexual esteem, and sexual distress

Overall dispositional mindfulness (total score), sexual self-esteem, and sexual distress.

First, results revealed significant direct paths from dispositional mindfulness (total score) to sexual distress ($\beta = -0.25$, SE = 0.04; 95% CI, -0.33 to -0.18 ; $P < .001$), explaining 6.3% ($R^2 = 0.06$) of the variance in sexual distress.

Sexual self-esteem was then entered into the model as mediator variable (see Figure 1). Results indicated that higher

Table 2. Bivariate correlations and descriptive statistics among the study variables (n = 696).

Variables	1	2	3	4	5	6	7	8
1. Total mindfulness	—							
2. Sexual esteem	0.19 ^a	—						
3. Sexual distress	-0.25 ^a	-0.43 ^a	—					
4. Observing	0.52 ^a	0.07	-0.03	—				
5. Describing	0.64 ^a	0.18 ^a	-0.15 ^a	0.28	—			
6. Acting	0.66 ^a	0.12 ^b	-0.24 ^a	0.12 ^b	0.28 ^a	—		
7. Nonreacting	0.61 ^a	0.12 ^b	-0.13 ^a	0.18 ^a	0.20 ^a	0.21 ^a	—	
8. Nonjudging	0.64 ^a	0.07	-0.22 ^a	0.07	0.15 ^a	0.41 ^a	0.35 ^a	—
Mean	78.01	9.14	11.58	13.39	16.79	17.65	14.34	15.80
SD	12.40	5.33	6.35	3.86	4.37	4.09	3.75	4.03

Total mindfulness indicates the total score of dispositional mindfulness; observing indicates the observation facet of dispositional mindfulness; describing indicates the description facet of dispositional mindfulness; acting indicates the acting with awareness facet of dispositional mindfulness; nonreacting indicates the nonreactivity facet of dispositional mindfulness; nonjudging indicates the nonjudgment of inner experience facet of dispositional mindfulness. ^a $P < .001$. ^b $P < .01$.

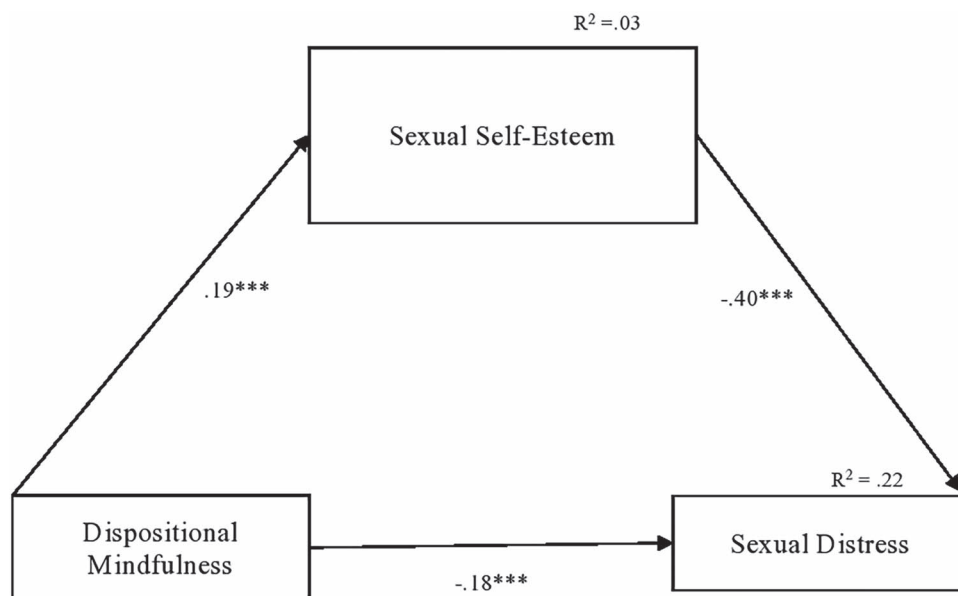


Figure 1. Results of path analyses examining the association between dispositional mindfulness, sexual self-esteem and sexual distress. Coefficients are standardized estimates. *** $P < .001$.

dispositional mindfulness was significantly related to higher sexual self-esteem ($\beta = 0.19$, $SE = 0.04$; 95% CI, 0.11 to 0.26; $P < .001$), which in turn was related to lower sexual distress ($\beta = -0.40$, $SE = 0.03$; 95% CI, -0.56 to -0.39 ; $P < .001$). Additionally, the direct path from dispositional mindfulness to sexual distress remained statistically significant ($\beta = -0.18$, $SE = 0.04$; 95% CI, -0.13 to -0.05 ; $P < .001$). The indirect path from dispositional mindfulness to sexual distress through sexual self-esteem was statistically significant ($\beta = -0.08$, $SE = 0.02$; 95% CI, -0.11 to -0.04 ; $P < .001$). Bootstrap CIs showed that the indirect effect of sexual self-esteem in the association between dispositional mindfulness and sexual distress ($\beta = -0.8$, $SE = 0.02$; 95% CI, -0.11 to -0.04 ; $P < .001$) indicated a significant indirect effect. The fit indices were not obtained, as it was a saturated model (ie, no degrees of freedom). The model explained 21.9% ($R^2 = 0.22$) of the variance in patients' sexual distress. In addition, we reran the model to examine if the model was stable while controlling for sociodemographic variables. Results revealed that controlling for age, education level, income, sexual orientation, and relationship status did not change the significance and strength of the associations between the study variables.

Five facets of dispositional mindfulness, sexual self-esteem, and sexual distress.

First, results revealed significant direct paths from 3 facets of dispositional mindfulness (ie, description, acting with awareness, and nonjudgment) to sexual distress ($\beta = -0.09$, $SE = 0.04$; 95% CI, -0.16 to -0.01 ; $P = .035$; $\beta = -0.15$, $SE = 0.04$; 95% CI, -0.24 to -0.07 ; $P < .001$; and $\beta = -0.13$, $SE = 0.04$; 95% CI, -0.22 to -0.05 ; $P = .002$, respectively). Directs paths from the remaining facets of dispositional mindfulness (ie, observation and nonreactivity) to sexual distress were not statistically significant ($\beta = 0.03$, $SE = 0.04$; 95% CI, -0.05 to 0.11; $P = .471$; and $\beta = -0.04$, $SE = 0.04$; 95% CI, -0.12 to 0.05; $P = .380$, respectively). This model explained 8.1% of the variance in sexual distress.

Sexual esteem was then entered into the model as an intermediary variable (see Figure 2). Results indicated that patient's dispositional mindfulness was significantly related to higher sexual self-esteem, which in turn was related to sexual distress. More precisely, 2 facets of dispositional mindfulness (ie, description and nonreactivity) were statistically linked to sexual self-esteem ($\beta = 0.16$, $SE = 0.04$, 95% CI, 0.09 to 0.24; $P < .001$; and $\beta = 0.09$, $SE = 0.04$, 95% CI, 0.01 to

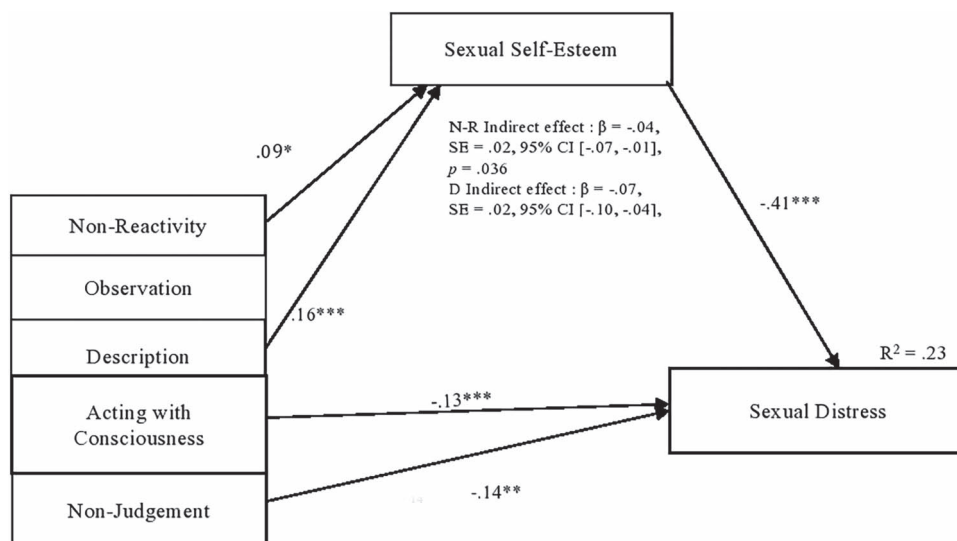


Figure 2. Results of path analysis examining the associations between the 5 facets of dispositional mindfulness, sexual self-esteem, and sexual distress. Coefficients are standardized estimates. * $P < .05$. ** $P < .01$. *** $P < .001$.

0.17; $P = .033$, respectively). In turn, sexual self-esteem was statistically linked to sexual distress ($\beta = -0.41$, SE = 0.03; 95% CI, -0.47 to -0.34 ; $P < .001$). Additionally, the direct paths from 2 facets of dispositional mindfulness (ie, acting with awareness and nonjudgment) to sexual distress remained statistically significant ($\beta = -0.13$, SE = 0.04, 95% CI, -0.20 to -0.06 ; $P < .001$; and $\beta = -0.14$, SE = 0.04; 95% CI, -0.21 to -0.06 ; $P < .001$, respectively). The indirect paths from dispositional mindfulness (ie, description and nonreactivity) to sexual distress through sexual self-esteem were statistically significant ($\beta = -0.07$, SE = 0.02; 95% CI, -0.10 to -0.03 ; $P < .001$; and $\beta = -0.04$, SE = 0.02; 95% CI, -0.07 to -0.00 ; $P = .034$, respectively). Bootstrap CIs showed that the indirect effect of sexual self-esteem in the association between dispositional mindfulness (description) and sexual distress ($\beta = -0.07$, SE = 0.02; 95% CI, -0.10 to -0.04 ; $P < .001$) and between dispositional mindfulness (nonreactivity) and sexual distress ($\beta = -0.04$, SE = 0.02; 95% CI, -0.07 to -0.00 ; $P = .036$) were statistically significant. This final model's fit indices supported the adjustment of the hypothesized model to the data ($\chi^2_6 = 3.45$, $P = .751$, CFI = 1.00, TLI = 1.00, RMSEA = 0.00, 90% CI, 0.00 to 0.04; SRMR = 0.01, and χ^2/df ratio = 0.57). The integrative model explained 23.0% of the variance in patients' sexual distress. Results revealed that controlling for age, education level, income, sexual orientation, and relationship status did not change the significance and strength of the associations between the study variables.

Discussion

Despite the growing interest in dispositional mindfulness and its potential impact on sexual well-being,^{13,18,26,49} there remains a paucity of research specifically investigating the connections between dispositional mindfulness, sexual self-esteem, and sexual distress. Moreover, few studies have delved into the relationships between dispositional mindfulness and its 5 facets, with a particular focus on their associations with sexual self-esteem and sexual distress. Furthermore, the existing literature has not explored these links within a clinical sample of adults seeking assistance for their sexual concerns.

Yet, it is crucial to perform studies with the clinical population of adults seeking sex therapy because results from the general community could potentially not generalize to them and their specific realities and guide well-tailored interventions. Addressing these gaps, the present study aimed to examine the interplay between dispositional mindfulness, sexual self-esteem, and sexual distress among patients seeking sex therapy who are particularly susceptible to experience sexual distress.

Supporting our hypothesis, our study revealed that dispositional mindfulness was associated with sexual self-esteem and sexual distress. Specifically, higher levels of dispositional mindfulness were related to higher sexual self-esteem, which in turn was associated with lower levels of sexual distress. These results align with the theoretical framework suggesting that dispositional mindfulness fosters self-awareness, nonjudgment, and acceptance, promoting a positive self-perception and, consequently, reducing negative outcomes.^{6,11,13,14,26,27} Based on the principles of mindfulness, individuals who possess a mindful disposition exhibit a state of present-centered nonjudgmental awareness of their experiences, which is conducive to the maintenance of overall higher sexual self-esteem^{50,51} and sexual self-esteem specifically.^{32,33,52,53} This nonjudgmental state allows individuals to effectively navigate their thoughts and emotions, guarding against potential harm to their sexual self-esteem by reducing the impact of negative thoughts.⁵⁴ When individuals are more mindful, they develop the ability to accurately describe their feelings and experiences, allowing them to be more aware of their emotions and thoughts in the context of their sexuality. By becoming less reactive and letting go of intrusive thoughts, they can cultivate a greater sense of presence and comfort with their sexuality.⁶ This increased sense of being in the present moment and the ability to distance themselves from negative self-cognitions may contribute to reinforcing their sexual self-esteem. Also, by articulating their feelings and thoughts, individuals may gain a better understanding of themselves, fostering self-acceptance and self-compassion,¹³ which are both important for sexual functioning and well-being.^{55,56} As a result, they may become more confident in their sexuality, which in turn, can reduce levels of sexual distress. Yet, studies would need to document

to role of compassion and confidence in intervention aiming to reduce sexual distress.

Our study extended the existing literature by exploring the individual facets of dispositional mindfulness in relation to sexual self-esteem and sexual distress. We observed that 2 facets of dispositional mindfulness, namely, acting with awareness, and nonjudgment, were significantly associated with sexual distress. This finding suggests that being attentive to one's experiences, accepting them without judgment, and being present in sexual encounters might contribute to lower sexual distress. Our results also revealed that sexual self-esteem mediated the relationship between dispositional mindfulness (description and nonreactivity) and sexual distress. This mediation suggests that the contribution of higher dispositional mindfulness facets on sexual distress through enhancing sexual self-esteem.^{26,32,33}

The interpretation of the results suggests that individuals who lack dispositional mindfulness may be more prone to engaging in sexual interactions without reflection. This lower dispositional mindfulness can be associated with feeling out of control and uncertain during intimate moments,¹³ potentially contributing to a sense of discomfort and insecurity.⁶ Without the ability to be present and attuned to their own experiences, individuals may struggle to develop an authentic connection with their sexuality (eg, being able to identify and express their preferences, limits, and connecting with their own experience and the other person during sex),^{57,58} which could heighten their level of sexual distress. Similarly, individuals who tend to be self-critical and judgmental may face challenges in fully embracing their sexual experiences.⁶ The tendency to judge oneself can create mental barriers, making it difficult to fully engage and be confident in sexual interactions.^{26,34} This internalized criticism may hinder their ability to be present and enjoy the moment, which can be associated with increased levels of sexual distress.

The presence of these negative cognitive patterns highlights the importance of cultivating dispositional mindfulness to foster a healthier relationship with one's sexuality. Mindfulness practices can help individuals become more aware of their thoughts and feelings, enabling them to detach from judgmental or self-critical tendencies (ie, more dispositional mindfulness). By developing a more compassionate and non-reactive attitude toward their sexual experiences, individuals may enhance their ability to fully engage, connect, and feel confident during intimate moments.

Limitations and future research directions

Several limitations should be acknowledged in this study, which can guide future research to further enrich our understanding of the relationships between dispositional mindfulness, sexual self-esteem, and sexual distress. First, the reliance on a cross-sectional design precludes establishing causal relationships between the variables and restricts our understanding of the temporal dynamics between dispositional mindfulness, sexual self-esteem, and sexual distress. Future research could benefit from employing longitudinal designs to investigate the developmental trajectories and reciprocal associations between these variables over time. Second, the use of a sample that is predominantly from Canada may limit the generalizability of the findings to broader populations, especially to non-WEIRD (Western, educated, industrialized, rich, and democratic) countries.^{59,60} It is important for future research to include more diverse samples from

different cultural backgrounds to enhance the cross-cultural applicability of the results. Part of the results were collected before the COVID pandemic, which may have unclear impacts, although controlling for this variable did not affect the results. Future research should also aim to replicate these results with larger and more diverse samples to ensure the stability of the observed associations.

Third, our study focused on individual participants, and future research should explore dyadic data analysis to investigate how one partner's dispositional mindfulness may affect the other's sexual distress. Because data are increasingly showing interdependency in outcomes of the sex partners,⁶¹⁻⁶³ such study could yield a more comprehensive understanding of relational dynamics in the context of sex therapy. Further research should also examine how mindfulness practices may contribute to sexual communication between partners, as enhanced present moment awareness and active listening cultivated through dispositional mindfulness could foster better communication and understanding of each other's needs and desires, potentially reducing distress arising from misunderstandings or unmet expectations in intimate relationships. In addition, considering other mental health variables in conjunction with dispositional mindfulness can offer a more holistic view of how dispositional mindfulness impacts sexual well-being. Other variables such as past adversities, childhood experiences,⁶⁴ relational status (single or in couple), and asexuality, should also be considered in future research to better understand the links between dispositional mindfulness, sexual self-esteem, and sexual distress. Finally, further research should study sexual distress according to the full DSM-5 criteria and use mixed methods including qualitative data to further explore the present results.

Clinical implications

Findings of this study have important implications for clinicians and practitioners working in the field of sex therapy, particularly with patients seeking help for sexual distress. Understanding the mediating role of sexual self-esteem in the relationship between dispositional mindfulness and sexual distress offers valuable insights for developing effective therapeutic strategies. One crucial clinical implication is the significance of addressing sexual self-esteem in patients experiencing high levels of sexual distress.²³ Therapists should recognize that enhancing sexual self-esteem may serve as a vital pathway to reduce sexual distress in adults seeking sex therapy. By incorporating targeted interventions that focus on fostering a positive and confident perception of one's sexual self, clinicians can potentially facilitate a positive impact on sexual self-esteem and lower sexual distress.

Mindfulness-based therapy emerges as a promising avenue for improving sexual health and reducing distress.^{17,19,54} Mindfulness practices that are part of mindfulness-based therapy teach emotional regulation,⁶⁵ helping individuals manage feelings of anxiety, shame, or inadequacy related to sexual performance or experiences, contributing to lower sexual distress.^{11,28} The positive association between dispositional mindfulness and sexual esteem observed in this study provides further support to the potential benefits of integrating mindfulness practices into sex therapy settings.⁶⁶ By incorporating mindfulness techniques, such as mindfulness meditation and self-compassion practices, therapists can help patients develop a deeper awareness of their sexuality and enhance their capacity for self-acceptance and nonreactivity during

sexual activity.^{6,26,53} Within sex therapy, clinicians should also explore the role of specific facets of dispositional mindfulness in relation to sexual self-esteem and sexual distress.⁶⁶ By identifying and targeting key facets, such as description, acting with awareness, nonjudgment, and nonreactivity, therapists can tailor interventions to address individual needs more effectively.⁶⁶ Helping patients to become descriptive of their sexual experiences, cultivate present-moment awareness, and respond nonreactively to negative thoughts may foster a more positive relationship with their sexuality. Such mindful approaches can also contribute to the development of a model of “good-enough” sex, emphasizing self-compassion and understanding that sexual experiences may vary and evolve over time.⁶⁷ Empowering patients to cultivate dispositional mindfulness in their daily lives can be a critical component of therapy. By providing patients with practical tools and techniques to cultivate dispositional mindfulness outside of therapy sessions, therapists enable patients to take an active role in their own healing process. Encouraging regular mindfulness practices can help patients build greater self-awareness and emotional regulation,⁶⁸ supporting their journey toward improved sexual self-esteem and reduce sexual distress.

Conclusion

The results of this study add to the existing literature highlighting the role of dispositional mindfulness and sexual esteem in lowering sexual distress within a clinical sample of adults seeking sex therapy. They highlight the importance of fostering patients' disposition to mindfulness by integrating mindfulness-based interventions into therapeutic practices. Specifically, therapies should focus on enhancing patients' ability to be open to themselves and their experiences without judgment and to articulate their internal states with clarity. This could involve incorporating mindfulness meditation, body awareness exercises, and cognitive-behavioral techniques aimed at promoting an awareness of internal states, self-acceptance, and emotional regulation. Additionally, developing programs that explicitly target the improvement of sexual self-esteem through education, communication skills training, and positive self-reflection could potentially reduce sexual distress. Future studies should explore the long-term effectiveness of such mindfulness-based interventions, the optimal combination of mindfulness and self-esteem-focused strategies, and their applicability across diverse populations. This research could lead to the development of comprehensive, evidence-based therapeutic protocols that holistically address psychological and sexual well-being.

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Author contributions

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editing [Equal]), M.G. (Data curation [Supporting], Formal analysis [Lead], Validation [Supporting], Writing – original draft [Supporting], Writing – review & editing [Supporting]), M.H. (Funding acquisition [Supporting], Writing – review & editing [Equal]).

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Conflicts of interest

None declared.

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