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FEMALE SEXUAL DYSFUNCTION AND DISORDER (A STANTON, SECTION EDITOR)

Emotion Regulation and Sexual Well-being Among Women: Current Status and Future Directions

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Abstract

Purpose of Review Emotion regulation is a key contributor to social functioning and mental health; yet, its influence on sexual well-being has only recently gained research attention. To elucidate correlates of women's sexual satisfaction, desire, frequency, function, and distress and guide future study, the present review evaluates research at the intersection of emotion regulation and sexual well-being.

Recent Findings There are clear associations between mood and sexual well-being, with the interference of negative emotion on sexual outcomes stronger for women relative to men. Although there is evidence that women's poorer emotion regulation *abilities* are related to poorer sexual well-being, associations between specific emotion regulation *strategies* and sexual outcomes are less established, possibly due to the abundance of regulatory strategies and dearth of research on emotion regulation in sexual contexts. Still, our review suggests that women's greater sexual well-being is positively associated with strategies characterized by adaptive engagement (e.g., problem solving, acceptance, reappraisal) and negatively associated with strategies characterized by disengagement (e.g., avoidance, suppression, distraction) and aversive cognitive perseveration (e.g., worry, rumination).

Summary Extant research is consistent with models of women's sexual response and offers preliminary support for the emotion regulation–sexual well-being link. While the explanatory power of the current literature is limited by a lack of dyadic and longitudinal studies, interventions targeting emotion regulation hold promise for improving women's and couples' sexual well-being.

Keywords Emotion regulation · Difficulties in emotion regulation · Emotion regulation strategies · Sexual well-being · Sexual dysfunction · Sexual satisfaction

Introduction

Emotion regulation refers to the abilities and strategies that people use to influence their experience and expression of emotion [1••]. Associated with functioning in myriad aspects of life, from physical health to romantic relationships [2, 3], emotion regulation has emerged as one of the most influential constructs in psychology [4•, 5]. Recent conceptualizations emphasize the bidirectionality of emotion regulation and social relations [6], making the regulation of emotion relevant to the inherently interpersonal context of sexual relationships [7••].

Sexual well-being predicts overall well-being, life satisfaction, and is a leading contributor to the quality and longevity of romantic relationships [8]. For the purposes of this review, we adopt a definition of sexual well-being which includes an individual's subjective evaluation of their sexual satisfaction, desire, and frequency of sexual activity, as well as their degree of sexual problems and distress. The importance of emotion to women's sexual well-being is common across biopsychosocial conceptualizations [9, 11, 40]. Yet, collaboration between the fields of sex research and emotion regulation is rare.

Although emotion regulation is also linked with men's sexual well-being [12••], there are notable gender differences in these processes (e.g., women endorse a larger repertoire of regulatory strategies, more frequent use of rumination to manage emotion [13], and a greater interference of negative emotion on sexual functioning relative to men [14]). We therefore

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heed the call to consider such differences in emotion research [15] and focus on women for the purpose of this review. Where relevant, we report on gender differences in the studies reviewed, emphasizing findings for women's sexual well-being.

After establishing the relationship between emotions and sexual outcomes, we examine existing evidence linking women's emotion regulation to their sexual well-being and provide an overview of emotion regulation in current theoretical models of women's sexual response. We end by identifying notable gaps in current knowledge, directions for future research, and implications of our review for theory, research, and clinical work.

Emotion and Sexual Well-being

Despite considerable research into the study of emotion, there remains little consensus on its specific definition [16]. Emotions are elicited in response to internal and external events and involve shifts in cognitive processing, changes in expression and physiology, and one's own subjective experience [17]. Interpersonally, emotions can facilitate communication and influence behavior (e.g., by relaying non-verbal information and spurring behavioral responses in oneself and others [18]). Emotions or mood states tend to fit into discrete categories (e.g., fear, anger, happiness, joy) and can be broadly classified as positive or negative [19].

Emotions About Sex

Cross-sectional and longitudinal studies find that emotional responses to sexual experiences early in life are associated with sexual well-being in adulthood [20]. This relationship may be important for understanding how individuals regulate their emotions before, during, and after sex. Both positive (e.g., excitement) and negative (e.g., fear) emotions are commonly reported in response to a range of first sexual experiences (e.g., kissing, oral sex, intercourse). In general, women report more negative emotions in response to these sexual activities than do men [21–24]. Limited research has investigated the link between emotional responses and sexual well-being outcomes directly; however, there is some evidence to suggest that positive and negative emotional responses to most recent sexual encounters are positively and negatively related, respectively, to sexual satisfaction [25, 26]. In the following section, we discuss the relationships between positive and negative emotions and the various facets of sexual well-being.

The Relationship Between Emotions and Sexual Well-being

There is high comorbidity between sexual dysfunction and depressive and anxiety disorders among men [27] and women [28], with some evidence to suggest that mood and anxiety disorders may precede the development of sexual dysfunction [27, 29]. Trait-level negative mood is linked with poorer sexual function in men and women [30, 31], whereas trait-positive mood is associated with better sexual function [30–32]. Trait-level positive, but not negative, mood distinguishes women with and without clinical levels of sexual function problems, highlighting the potential importance of positive mood for sexual functioning. Individuals with sexual dysfunction also report experiencing less positive and more negative emotional reactions during sexual activity [33–35]. A daily experience study found that on days when women with genito-pelvic pain reported higher levels of anxiety and depressive symptoms and had sex, they reported greater pain, poorer sexual function, and higher distress; when their partners reported higher anxiety and depressive symptoms, women with genito-pelvic pain reported higher sexual distress [36]. In a longitudinal study, anhedonia—the inability to feel pleasure—in 1 week was associated with poorer sexual function in subsequent weeks; however, the reverse was not true [37]. Taken together, findings from cross-sectional research establish clear links between emotions and sexual functioning, with longitudinal studies providing evidence of causality that support low mood as a predictor of poorer sexual function.

Whereas negative emotional states, including clinical levels of depression and anxiety, are typically associated with women's decreased sexual desire and frequency [38, 39], the opposite relationship has been documented among heterosexual men [39]. Daily experience studies find that coitus on 1 day is not linked with negative mood on the same-day [40], but is linked with lower next-day negative mood and anxiety [41, 42]. In contrast, sexual activity (i.e., oral sex, passionate kissing, penetration) on 1 day is associated with increased positive mood on the same-day [40, 43] and next-day [41, 44]. More pleasurable sexual activity is linked with lower next-day negative mood and anxiety [41, 45] and higher next-day positive mood [41]. Longitudinal studies reveal similar patterns [46].

Regarding associations between mood and the likelihood of engaging in sexual activity, one study found that higher negative mood on 1 day was linked with lower likelihood of sexual activity that *same-day*, whereas there was no effect for positive mood and same-day sexual activity [40]. However, the effects of positive and negative mood on *next-day* sexual activity are mixed: higher positive and negative moods on 1 day have been associated with higher [44] and lower [40] likelihoods of sexual activity on subsequent days, respectively. Other studies find no relationship between mood and next-day sexual activity [41, 42].

Studies find that negative emotional states are associated with lower sexual arousal and desire (but see Peterson and Janssen [47] who found negative affect predicted women's greater genital response), whereas positive emotional states are associated with higher arousal and desire in women and men [32, 47–49]. A less intuitive finding, given these patterns, is that ambivalent mood or co-occurring positive and negative mood is associated with high subjective arousal and desire, perhaps highlighting the importance of experiencing a range of emotions for sexual well-being [47]. Because positive emotions have been shown to counteract the psychophysiological effects of negative emotions [50], it is possible that the detrimental effects of negative mood on sexual well-being are lessened when opposite moods co-occur. In a dyadic study of heterosexual couples, positive mood was positively related to sexual desire for both members, but negative mood was unrelated to sexual desire [51]. Longitudinal studies find similar results, such that increased anhedonia and anxiety in a given week were associated with lower levels of sexual desire and subjective arousal during the same week [37]. Induction of negative mood (e.g., anxiety, sadness) has been shown to result in increased, decreased, or no change in self-reported arousal, desire, and objectively measured physiological arousal in a laboratory context [39, 52]. Induction of positive mood does not appear to influence arousal and desire in a laboratory context [52]. These somewhat conflicting findings are likely due to methodological differences between studies.

In cross-sectional and longitudinal studies, negative affect is linked with lower levels of sexual satisfaction, more sexual problems, and greater distress for women and men, although effects are stronger for women [14, 36, 37]. Positive mood is linked with greater sexual satisfaction for both women and men [14].

Although the directional relationships between emotions and sexual well-being are mixed, sexual activity clearly evokes both positive and negative emotions and these emotions are linked with increases and decreases in sexual well-being. It follows then that how individuals and couples manage their emotional responses before, during, and after sex may be an important mechanism for explaining the links between emotions and sexual well-being.

Emotion Regulation and Sexual Well-being

Recent conceptualizations view emotion regulation as a collection of abilities and strategies that influence the experience of emotion [1••]. Ability models (e.g., [53, 54]) define emotion regulation in terms of dispositional qualities (e.g., emotional awareness, tolerance of distress, and regulatory flexibility) that influence one's potential to modulate emotion. Strategy models (e.g., [17, 55]) focus on the characteristics and consequences of various approaches to managing emotion, often classifying strategies as more or less adaptive in terms of their capacity to alleviate or maintain distress (e.g., reappraisal versus rumination) [56, 1••]. Despite recognition of their bidirectional influence [57], few studies have integrated ability and strategy models within the same design. Consequently, we review empirical findings for emotion regulation abilities and strategies separately.

Emotion Regulation Abilities

Difficulties in emotion regulation—problems acting towards predetermined goals while experiencing negative emotion—[58•] are related to lower sexual well-being among samples of women without a specific mood disorder diagnosis, including those reporting lower sexual satisfaction, sexual frequency, and sexual functioning [25, 59, 60]. Relative to controls, women with genito-pelvic pain [61•] and clinically low sexual arousal and/or desire [62] report greater difficulties with emotion regulation. One study of women with female sexual interest/arousal disorder (FSIAD) found that emotion regulation ability was unrelated to sexual desire and distress [12••]. Thus, while preliminary research supports the link between difficulties in emotion regulation and sexual dysfunction, evidence that regulation abilities are related to sexual adjustment among women with sexual dysfunction is currently lacking.

Distress tolerance, which refers to one's ability to endure negative emotions [1••], has been recommended as a target for treating sexual problems in older adults [63] and promoting sexual health among individuals diagnosed with substance use disorder [64, 65] and women with out-of-control sexual behavior [65]. Affect dysregulation, a construct which captures problems in emotion regulation ability and distress tolerance [66], mediated the relationship between chronic childhood maltreatment and women's lower sexual satisfaction [67]. Relatedly, borderline personality disorder (BPD), which is more prevalent among women than men [18], has been linked to engaging in more risky sexual behaviors [68], poorer sexual health [69], greater avoidance of sex [70], and high rates of sexual dysfunction [71]. Because difficulties regulating negative emotion and tolerating distress are symptoms of BPD [72], it is possible that deficits in these abilities may adversely impact women's sexual well-being.

Another emotion regulation process relates to actively accessing and reflecting on one's emotional state [54]. Individuals who score higher on measures of alexithymia—difficulties in identifying and communicating their emotions—tend to report more sexual problems relative to those with lower alexithymia [73, 74]. Symptoms of alexithymia might interfere with establishing an emotional connection with a partner, which is frequently associated with lower sexual desire and satisfaction in women [7••].

Conversely, emotional awareness and clarity have been found to benefit sexual well-being. Mindfulness, for example,

involves the non-judgmental awareness of one's experience. It is associated with several core emotion regulation abilities, including emotional clarity and awareness as well as distress tolerance and regulatory flexibility (i.e., the flexible use of various emotion regulation strategies) [75]. Cross-sectional studies have linked greater trait mindfulness to higher sexual satisfaction and sexual desire among community [76–78] and clinical samples [48]. One study found that better emotional regulation abilities underlay these associations; that is, individuals higher in trait mindfulness were better able to regulate their negative emotions (e.g., insecurities about sex), which in turn led them to feel more sexually satisfied [77].

Emotion Regulation Strategies and Women's Sexual Well-being

Despite recognition that context (e.g., setting, intensity, and type of emotion) influences both the selection and consequences of regulatory strategies [79, 4•], little is known about emotion regulation strategies in sexual contexts. Furthermore, the context-dependent nature of emotion regulation strategies presents a challenge for research [56, 1, 80••]: anything undertaken to change an emotion, from eating chocolate to skydiving, could be considered a regulatory strategy. To balance breadth with focus, we organize the following section according to the three factor structure found to underlay common emotion regulation strategies [1••].

The first factor, *disengagement*, is characterized by strategies used to avoid emotion, such as behavioral avoidance, emotional suppression, and distraction [1••]. Several studies indicate that women's use of avoidance to manage negative emotions (e.g., fear) is associated with their lower sexual well-being. A prospective study of women with genito-pelvic pain found avoidance coping predicted declines in sexual functioning 5 months later, accounting for pain intensity [81]. Targeting avoidance in cognitive-behavioral interventions for genito-pelvic pain leads to improved sexual function and greater frequency of sex [82, 83]. Moreover, compared with controls, women who self-reported symptoms of FSIAD endorsed greater disgust in response to sexual stimuli and more avoidance of sexual activity [84], suggesting the possibility that women with low sexual desire and/or arousal use avoidance to regulate feelings of disgust.

One of the few studies to explicitly assess the use of suppression to manage emotions in sexual contexts (e.g., concealing the expression of emotion when talking about sexual problems) was conducted by Dubé and colleagues [12••]. Although greater suppression was linked to poorer relationship adjustment among couples coping with FSIAD, its use was unrelated to affected women's levels of sexual distress and desire. Constructs related to suppression, however, have been associated with lower sexual satisfaction. Self-silencing, for example, involves concealing emotions, thoughts, and actions to maintain relationships [85] and is therefore conceptually similar to suppression [86]. In a mixed-method longitudinal study, higher levels of self-silencing in women predicted lower sexual satisfaction over the course of a year [87]. Whereas women's distraction in sexual contexts is typically related to diminished sexual well-being [88, 89], its consequences as a regulatory strategy are less established. In one study, greater self-distraction assessed at the trait level (e.g., turning to work or other activities to cope) was linked to lower sexual functioning in a large community sample of women [90]. A separate study found lower distraction during sex was linked to women's greater sexual satisfaction [76].

The second factor, *aversive cognitive perseveration*, involves preoccupation with negative thoughts and feelings; it includes strategies such as worry and rumination [1••]. Greater pain-related anxiety (e.g., worry that something terrible will happen due to pain) is associated with poorer sexual function in women with genito-pelvic pain [91]. Catastrophizing, which includes repetitive rumination (e.g., "I can't seem to keep it out of my mind"), is associated with poorer sexual satisfaction, and functioning, as well as lower frequency of sexual activity in community and clinical samples of women [61, 92–94]. However, one study found that catastrophizing was unrelated to pain intensity during intercourse among women with genito-pelvic pain if they perceived their partners as highly supportive [95].

The third factor, *adaptive engagement*, is characterized by active strategies to manage emotion, such as problem solving, acceptance, and reappraisal. In a qualitative study, problem solving emerged as a common strategy among young adults (57% female) for resolving feelings of sexual distress and low desire [96•]. Whereas participants in this study who engaged in problem solving reported enhanced sexual experiences, young women who reported barriers to using this strategy continued to experience unsatisfying sex. Moreover, a form of problem solving therapy, which targeted the resolution of negative emotion, improved sexual satisfaction over the course of 12 weeks in a small sample of Iranian women [97]. Regarding acceptance (i.e., a willingness to experience emotion and events, unaltered), women with genito-pelvic pain who reported greater acceptance of pain endorsed better sexual functioning and had partners who were more sexually satisfied [98]. A recent clinical trial comparing two cognitive therapies for women with genito-pelvic pain found that acceptance mediated improvements in pain and sexual distress, regardless of treatment modality [99]. In terms of reappraisal (i.e., changing one's perception of a situation to manage emotion), Dubé and colleagues [12••] found that use of this strategy in sexual contexts was unrelated to sexual well-being among women with FSIAD; however, greater use of reappraisal in male partners of women with FSIAD was linked to their own higher sexual desire. Further, greater levels of trait reappraisal among college students (80.4% women) was

associated with greater confidence in their ability to upregulate (but not downregulate) their sexual desire [100].

Taken together, it appears women's greater sexual well-being is positively associated with strategies characterized by adaptive engagement and negatively associated with disengagement and aversive cognitive perseveration strategies.

Theoretical Models of Emotion Regulation and Sexual Well-being

Theoretical models of women's sexual response have long acknowledged the central importance of emotional experiences, particularly in relation to one's sexual relationship [9–11]. For example, Basson's circular model of sexual response suggests that a desire for emotional intimacy is a key motivation behind seeking out or being receptive to a partners' initiation of sexual activity [9]. Other clinical theories, such as the Good Enough Sex model, have likewise featured more adaptive emotional responses to sex (e.g., honest expression of feelings, empathic response to sexual disclosures) as one of the core ingredients to maintaining sexual satisfaction over time [10]. Prior theories have positioned the role of emotions within a broader biopsychosocial framework of women's sexual response and have rarely delved deeper into articulating specific emotion regulation processes that may influence women's sexual function.

One recent exception is Rosen and Bergeron's [7••] *Interpersonal Emotion Regulation Model* of women's sexual dysfunction. Given the high negative affect that often accompanies sexual problems (e.g., guilt, shame, anxiety) [101] as well as the heightened perceived threat that sexual conflicts pose to relationships [102], the authors propose emotion regulation as a central pathway for determining couples' adjustment to sexual dysfunction. The model consists of two key tenets. First, interpersonal factors acting at both the distal and proximal levels reciprocally affect couples' emotion regulation in response to the sexual problem. Distal factors refer to relationship experiences, contexts, or styles that mainly predate the sexual dysfunction (e.g., childhood maltreatment). Proximal factors refer to interpersonal interactions that occur before, during, or just after partnered sexual activities (e.g., empathic or hostile responses to the sexual problem). Rosen and Bergeron [7••] conceptualize distal and proximal variables as risk factors for poor emotion regulation ability and as factors that interfere with or facilitate the use of more adaptive emotion regulation strategies within the couple when coping with a sexual dysfunction.

The second core assumption of the model is that difficulties regulating negative emotions in turn affect women's sexual response and the couples' psychological, relational, and sexual adjustment to the sexual problem. Specifically, difficulties regulating negative emotions are thought to enhance couples' sensitivity and reactivity to negative stimuli (e.g., couple conflict over sex) and to promote the use of less adaptive emotion regulation strategies over more adaptive strategies. For example, difficulty coping with common feelings of guilt and anxiety about a woman's sexual problem (low desire, painful intercourse, etc.) may heighten the perceived threat to the relationship, lead to more emotional outbursts, and promote the use of emotional suppression and avoidance in order to cope with these negative emotions. In contrast, more effective management of negative emotions within the couple via appropriate disclosures and perceived partner responsiveness (i.e., feeling understood and cared for by a partner) would promote more adaptive emotion regulation strategies such as reappraisal and acceptance. According to the model, these emotion regulation processes in turn affect women's sexual response and the couples' adjustment.

To date, the *Interpersonal Emotion Regulation Model* is supported by evidence from the following two areas. First, there are links between interpersonal factors (e.g., dyadic conflict, sexual satisfaction) and emotion regulation difficulties and use of more or less adaptive emotion regulation strategies (e.g., emotional suppression) [67, 12••]. Second, couples who are better able to coregulate their cognitive, affective, and motivational responses to a sexual problem experience fewer negative impacts of sexual dysfunction to their lives [7••]. Still, as the authors note, there are many aspects of the model that require empirical validation, including a test of the core hypothesis that emotion regulation mediates the associations between interpersonal factors and couple adjustment to sexual dysfunction in women.

Gaps in Knowledge and Future Directions

Despite agreement that emotion and its regulation are socially situated [103–105], limited attention has been paid to emotion regulation as it relates to sexual well-being in interpersonal contexts. Dyadic studies that account for interdependence in emotion regulation and sexual well-being among both members of the couple are rare. Consequently, our understanding of how individuals' emotion regulation influences both their own and their partners' sexual well-being is limited. Methods for analyzing dyadic data, such as the actor-partner interdependence model [106], should be incorporated into future studies.

We also lack knowledge, especially within sexual contexts, of the correlates and consequences of strategies people use to regulate *their partners'* emotions—a construct termed *extrinsic* emotion regulation [17]. Variations in regulators' motives, emotional intelligence, and self-efficacy influence outcomes in the person who is the target of the regulatory attempts [107]; yet, implications of these individual differences for sexual well-being are unknown. One's use of the social context to regulate emotion—interpersonal emotion

regulation—[108] is another understudied regulatory strategy. It can be intrinsic (e.g., hugging someone to help improve one's own mood) or extrinsic (e.g., hugging someone to cheer the other person up).. Preliminary work from the relationship sciences suggests that extrinsic interpersonal emotion regulation is relevant for couples' well-being (e.g., [109]). It is therefore possible that interpersonal emotion regulation, both intrinsic and extrinsic, is related to women's sexual well-being. However, because the consequences of interpersonal strategies vary with context (e.g., whereas affectionate touch decreases stress for most individuals [110], it appears to have the opposite effect for women with sexual problems [111]), further research specific to sexual well-being is needed.

A handful of studies within the field of sex research allude to sexual activity as a means to manage emotion, yet systematic study of sex as a regulatory strategy is largely absent. In a qualitative study of women's sexual pleasure, regulating negative emotion (e.g., stress, negative mood, pain) emerged as a common motive for masturbation [112]. Engaging in partnered sexual activity to avoid negative emotion (e.g., guilt) or experience positive emotion (e.g., happiness) has been linked to poorer and better sexual well-being in studies of sexual motivation, respectively [8]. Additionally, problems in emotion regulation are proposed as central to the development of compulsive sexual behavior [113]; avoidance of negative emotion is thought to fuel sexual impulsivity in women with BPD [68] and contribute to compulsive cybersex [114]. Together, it appears there is tacit recognition that sex can serve to regulate emotion, but evidence to date is atheoretical and research has focused on sex as a regulatory strategy in the context of pathologies. There remain several unknowns. For example, do sexual activities to regulate emotion differ from conceptually related strategies (e.g., distraction, avoidance) and do emotion regulation abilities and strategies interact to influence whether sexual activity is used to regulate emotion? Future research should systematically examine women's use of sexual activity as an emotion regulation strategy.

A final notable gap in knowledge stems from the tendency of emotion regulation research to focus on downregulation of emotion. Amplification of positive emotion is also relevant to the couple context [115]. Indeed, emotional expressivity—positive and negative—is associated with partner responsiveness [116] and women who perceive their partners as more responsive report greater sexual satisfaction [8]. Moreover, preliminary work suggests amplification of positive emotion and trait-level strategies, such as reappraisal, influence abilities, and beliefs related to the modulation of sexual desire and arousal [100, 117]. It is possible that clinical strategies which aim to increase positive emotion may facilitate upregulation of positive emotion in sexual contexts. Such strategies might include, for example, self-monitoring (encouraging clients to collect evidence related to positive thoughts and beliefs [118]), capitalization (sharing positive events with their partner [119]), and savoring (attending to positive aspects of events [18]). Yet, how the regulation of pleasant emotional experiences influences women's and couples' sexual well-being remains to be explored.

Implications

The current review underscores that sex elicits both positive and negative emotion, with consequences for women's sexual well-being. A practical implication is raising the significance of emotion regulation in women's sexual well-being. Current conceptualizations of women's sexual well-being typically endorse a biopsychosocial perspective with emotions embedded within the psychosocial aspect of models. Despite widespread acknowledgment of the importance of emotional perceptions and experiences in women's sexual well-being—within both clinical and non-clinical models of women's sexual response—empirical studies of specific emotion regulation processes are exceedingly rare. Thus, our evaluation of the literature has theoretical implications by suggesting that both emotion regulation abilities and strategies should be explicitly incorporated into theoretical conceptualizations of women's sexual well-being.

Clinically, this review may inform interventions aimed at improving women's and couples' sexual well-being by suggesting more and better integration of emotion regulation as a core target for intervention. We followed the empirically supported three-factor structure of emotion regulation strategies to link strategies to sexual well-being, which could help clinicians choose which factors to focus on with their clients. This recommendation is consistent with other clinicians who have suggested that enhancing emotion regulation abilities via emotion-focused therapy may be helpful in treating sexual problems [120, 121]. Cognitive-behavioral interventions focusing on increasing the use of more adaptive emotion regulation strategies (e.g., problem solving, acceptance, reappraisal) and reducing reliance on less adaptive strategies (e.g., suppression, avoidance) would also be useful. Finally, enhanced mindfulness has been linked to better emotion regulation, and in turn, greater sexual satisfaction [77], indicating that mindfulness-based therapy is another relevant approach. Indeed, a meta-analysis of mindfulness-based therapy for sexual dysfunction reported improvements in all aspects of sexual function following intervention [122•].

Conclusions

The current review identified clear links between emotions and sexual outcomes; however, the role of emotion regulation in women's sexual well-being is less established. Evidence from *ability models* is promising—greater awareness,

understanding, and identification of emotion tends to be associated with greater sexual well-being. Yet, there is a paucity of research on emotion regulation *strategies* and sexual well-being. While notable patterns emerged (e.g., strategies characterized by disengagement and aversive perseveration seem to interfere with women's sexual well-being), the lack of dyadic studies, longitudinal research, and research examining emotion regulation in sexual contexts limits the explanatory power of the current literature. Despite these limitations, extant studies correspond with theoretical models, such as the Interpersonal Emotion Regulation Model of women's sexual dysfunction [7••], and suggest this nascent area of study has great potential for improving the sexual well-being of women. Clinically, the integration of emotion regulation into the assessment, conceptualization, and treatment of women's sexual problems may bolster the effectiveness of existing treatments.

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References

Papers of particular interest, published recently, have been highlighted as:
- • Of importance
- •• Of major importance

1.•• Naragon-Gainey K, TP MM, Chacko TP. The structure of common emotion regulation strategies: a meta-analytic examination. Psychol Bull. 2017;143(4):384–427. https://doi.org/10.1037/bul0000093 **This metanalysis suggests a 3-factor structure—disengagement, aversive cognitive perseveration, and adaptive engagement—underlays common emotion regulation strategies.**
2. Chervonsky E, Hunt C. Suppression and expression of emotion in social and interpersonal outcomes: a meta-analysis. Emotion. 2017;17(4):669–83. https://doi.org/10.1037/emo0000270.
3. Appleton AA, Buka SL, Loucks EB, Gilman SE, Kubzansky LD. Divergent associations of adaptive and maladaptive emotion regulation strategies with inflammation. Health Psychol. 2013;32(7):748–56. https://doi.org/10.1037/a0030068.
4.• McRae K, Gross JJ. Emotion regulation. Emotion. 2020;20(1):1–9. https://doi.org/10.1037/emo0000703 **This article outlines the influential process model of emotion regulation and considers how contextual factors influence strategy selection.**
5. Koole S, Aldao A, Vohs K, Baumeister R. The self-regulation of emotion: theoretical and empirical advances. In: Handbook of self-regulation. 3rd ed; 2016. p. 101–12.
6. Burkitt I. Decentring emotion regulation: from emotion regulation to relational emotion. Emot Rev. 2018;10(2):167–73. https://doi.org/10.1177/1754073917712441.
7.•• Rosen NO, Bergeron S. Genito-pelvic pain through a dyadic lens: moving toward an interpersonal emotion regulation model of women's sexual dysfunction. J Sex Res. 2019;56(4–5):440–61. https://doi.org/10.1080/00224499.2018.1513987 **This article proposes a novel theoretical model of women's sexual (dys) function wherein emotion regulation is proposed as the mechanism linking interpersonal factors to sexual well-being.**
8. Impett EA, Muise A, Rosen NO. Sex as relationship maintenance. Advances in personal relationships, relationship maintenance: theory, process, and context. Cambridge: Cambridge University Press; 2020.
9. Basson R. The female sexual response: a different model. J Sex Marital Ther. 2000;26(1):51–65. https://doi.org/10.1080/009262300278641.
10. Metz ME, McCarthy BW. Enduring desire: your guide to lifelong intimacy. Taylor & Francis Group: New York, NY; 2011.
11. Dewitte M. On the interpersonal dynamics of sexuality. J Sex Marital Ther. 2014;40(3):209–32. https://doi.org/10.1080/0092623X.2012.710181.
12.•• Dube JP, Corsini-Munt S, Muise A, Rosen NO. Emotion regulation in couples affected by female sexual interest/arousal disorder. Arch Sex Behav. 2019;48(8):2491–506. https://doi.org/10.1007/s10508-019-01465-4 **This study elucidates ways in which emotion regulation abilities and strategies are linked to the adjustment of both members of couples coping with clinically low sexual interest/arousal.**
13. Nolen-Hoeksema S, Aldao A. Gender and age differences in emotion regulation strategies and their relationship to depressive symptoms. Pers Individ Differ. 2011;51(6):704–8. https://doi.org/10.1016/j.paid.2011.06.012.
14. Lykins AD, Janssen E, Newhouse S, Heiman JR, Rafaeli E. The effects of similarity in sexual excitation, inhibition, and mood on sexual arousal problems and sexual satisfaction in newlywed couples. J Sex Med. 2012;9(5):1360–6. https://doi.org/10.1111/j.1743-6109.2012.02698.x.
15. Kret ME, De Gelder B. A review on sex differences in processing emotional signals. Neuropsychologia. 2012;50(7):1211–21. https://doi.org/10.1016/j.neuropsychologia.2011.12.022.
16. Frijda NH. The evolutionary emergence of what we call "emotions". Cognit Emot. 2016;30(4):609–20. https://doi.org/10.1080/02699931.2016.1145106.
17. Gross JJ. Emotion regulation: current status and future prospects. Psychol Inq. 2015;26(1):1–26. https://doi.org/10.1080/1047840x.2014.940781.
18. Linehan MM. Cognitive-behavioral treatment of borderline personality disorder. New York, N Y: The Guilford Press; 1993.
19. Tellegen A, Watson D, Clark LA. On the dimensional and hierarchical structure of affect. Psychol Sci. 1999;10(4):297–303. https://doi.org/10.1111/1467-9280.00157.
20. Koch PB. The relationship of first intercourse to later sexual functioning concerns of adolescents. J Adolesc Res. 1988;3:345–62.
21. Regan PC, Shen W, Peña EDL, Gosset E. Fireworks exploded in my mouth: affective responses before, during, and after the very first kiss. Int J Sex Health. 2007;19:1–16.
22. Malacad BL, Hess GC. Oral sex: behaviours and feelings of Canadian young women and implications for sex education. Eur J Contracept Reprod Health Care. 2010;15(3):177–85. https://doi.org/10.3109/13625181003797298.
23. Sprecher S, Barbee A, Schwartz P. "Was it good for you, too?": gender differences in first sexual intercourse experiences. J Sex Res. 1995;32:3–15.
24. Vasilenko SA, Maas MK, Lefkowitz ES. "It felt good but weird at the same time": emerging adults' first experiences of six different

sexual behaviors. J Adolesc Res. 2015;30(5):586–606. https://doi.org/10.1177/0743558414561298.
25. Rellini AH, Vujanovic AA, Gilbert M, Zvolensky MJ. Childhood maltreatment and difficulties in emotion regulation: associations with sexual and relationship satisfaction among young adult women. J Sex Res. 2012;49(5):434–42. https://doi.org/10.1080/00224499.2011.565430.
26. Zimmer-Gembeck MJ, See L, O'Sullivan L. Young women's satisfaction with sex and romance, and emotional reactions to sex: associations with sexual entitlement, efficacy, and situational factors. Emerg Adulthood. 2015;3(2):113–22. https://doi.org/10.1177/2167696814548060.
27. Rajkumar RP, Kumaran AK. Depression and anxiety in men with sexual dysfunction: a retrospective study. Compr Psychiatry. 2015;60:114–8. https://doi.org/10.1016/j.comppsych.2015.03.001.
28. Burri A, Spector T. Recent and lifelong sexual dysfunction in a female UK population sample: prevalence and risk factors. J Sex Med. 2011;8(9):2420–30. https://doi.org/10.1111/j.1743-6109.2011.02341.x.
29. Khandker M, Brady SS, Vitonis AF, Maclehose RF, Stewart EG, Harlow BL. The influence of depression and anxiety on risk of adult onset vulvodynia. J Women's Health. 2011;20(10):1445–51. https://doi.org/10.1089/jwh.2010.2661.
30. Oliveira C, Nobre PJ. The role of trait-affect, depression, and anxiety in women with sexual dysfunction: a pilot study. J Sex Marital Ther. 2013;39(5):436–52. https://doi.org/10.1080/0092623X.2012.665813.
31. Peixoto MM, Nobre P. Incompetence schemas and sexual functioning in heterosexual and lesbian women: the mediator role of automatic thoughts and affective states during sexual activity. Cogn Ther Res. 2017;41(2):304–12. https://doi.org/10.1007/s10608-016-9811-z.
32. Nimbi FM, Tripodi F, Rossi R, Simonelli C. Testing a conceptual model for men's sexual desire referring to automatic thoughts, emotions, sexual function, and sexism. J Sex Med. 2018;15(11):1518–26. https://doi.org/10.1016/j.jsxm.2018.09.008.
33. Nobre PJ, Pinto-Gouveia J. Cognitions, emotions, and sexual response: analysis of the relationship among automatic thoughts, emotional responses, and sexual arousal. Arch Sex Behav. 2008;37(4):652–61. https://doi.org/10.1007/s10508-007-9258-0.
34. Nobre PJ, Pinto-Gouveia J. Emotions during sexual activity: differences between sexually functional and dysfunctional men and women. Arch Sex Behav. 2006;35(4):491–9. https://doi.org/10.1007/s10508-006-9047-1.
35. Peixoto MM, Nobre P. Positive and negative affect during sexual activity: differences between homosexual and heterosexual men and women, with and without sexual problems. J Sex Marital Ther. 2016;42(1):4–17. https://doi.org/10.1080/0092623x.2014.996929.
36. Paquet M, Rosen NO, Steben M, Mayrand MH, Santerre-Baillargeon M, Bergeron S. Daily anxiety and depressive symptoms in couples coping with vulvodynia: associations with women's pain, women's sexual function, and both partners' sexual distress. J Pain. 2018;19(5):552–61. https://doi.org/10.1016/j.jpain.2017.12.264.
37. Kalmbach DA, Pillai V, Kingsberg SA, Ciesla JA. The transaction between depression and anxiety symptoms and sexual functioning: a prospective study of premenopausal, healthy women. Arch Sex Behav 2015;44(6):1635–1649. doi:https://doi.org/10.1007/s10508-014-0381-4.
38. von Hippel C, Adhia A, Rosenberg S, Austin SB, Partridge A, Tamimi R. Sexual function among women in midlife: findings from the nurses' health study II. Womens Health Issues. 2019.
39. Kane L, Dawson SJ, Shaughnessy K, Reissing ED, Ouimet AJ, Ashbaugh AR. A review of experimental research on anxiety and sexual arousal: implications for the treatment of sexual dysfunction using cognitive behavioral therapy. J Exp Psychopathol. 2019;10(2):1–24. doi:Artn 2043808719847371. https://doi.org/10.1177/2043808719847371.
40. Fortenberry JD, Temkit M, Tu WZ, Graham CA, Katz BP, Orr DP. Daily mood, partner support, sexual interest, and sexual activity among adolescent women. Health Psychol. 2005;24(3):252–7. https://doi.org/10.1037/0278-6133.24.3.252.
41. Kashdan TB, Goodman FR, Stiksma M, Milius CR, McKnight PE. Sexuality leads to boosts in mood and meaning in life with no evidence for the reverse direction: a daily diary investigation. Emotion. 2017;18:563–76.
42. Kashdan TB, Adams LM, Farmer AS, Ferssizidis P, McKnight PE, Nezlek JB. Sexual healing: daily diary investigation of the benefits of intimate and pleasurable sexual activity in socially anxious adults. Arch Sex Behav. 2014;43(7):1417–29. https://doi.org/10.1007/s10508-013-0171-4.
43. Vasilenko SA, Lefkowitz ES. Sexual behavior and daily affect in emerging adulthood. Emerg Adulthood. 2018;6(3):191–9. https://doi.org/10.1177/2167696818767503.
44. Dewitte M, Van Lankveld J, Vandenberghe S, Loeys T. Sex in its daily relational context. J Sex Med. 2015;12(12):2436–50. https://doi.org/10.1111/jsm.13050.
45. Kashdan TB, Adams L, Savostyanova A, Ferssizidis P, McKnight PE, Nezlek JB. Effects of social anxiety and depressive symptoms on the frequency and quality of sexual activity: a daily process approach. Behav Res Ther. 2011;49(5):352–60. https://doi.org/10.1016/j.brat.2011.03.004.
46. Wesche R, Claxton SE, Lefkowitz ES, van Dulmen MHM. Evaluations and future plans after casual sexual experiences: differences across partner type. J Sex Res. 2018;55(9):1180–91. https://doi.org/10.1080/00224499.2017.1298714.
47. Peterson ZD, Janssen E. Ambivalent affect and sexual response: the impact of co-occurring positive and negative emotions on subjective and physiological sexual responses to erotic stimuli. Arch Sex Behav. 2007;36(6):793–807. https://doi.org/10.1007/s10508-006-9145-0.
48. Deziel J, Godbout N, Hebert M. Anxiety, dispositional mindfulness, and sexual desire in men consulting in clinical sexology: a mediational model. J Sex Marital Ther. 2018;44(5):513–20. https://doi.org/10.1080/0092623X.2017.1405308.
49. Hodgson B, Kukkonen TM, Binik YM, Carrier S. Using the dual control model to investigate the relationship between mood, genital, and self-reported sexual arousal in men and women. J Sex Res. 2016;53(8):979–93. https://doi.org/10.1080/00224499.2015.1110107.
50. Fredrickson BL. Cultivating positive emotions to optimize health and well-being. Prevention & Treatment. 2000;3(1). doi:https://doi.org/10.1037/1522-3736.3.1.31a.
51. Elaut E, Buysse A, De Sutter P, Gerris J, De Cuypere G, T'Sjoen G. Cycle-related changes in mood, sexual desire, and sexual activity in oral contraception-using and nonhormonal-contraception-using couples. J Sex Res. 2016;53(1):125–36. https://doi.org/10.1080/00224499.2014.976780.
52. ter Kuile MM, Both S, van Uden J. The effects of experimentally-induced sad and happy mood on sexual arousal in sexually healthy women. J Sex Med. 2010;7(3):1177–84. https://doi.org/10.1111/j.1743-6109.2009.01632.x.
53. Gratz KL, Roemer L. Multidimensional assessment of emotion regulation and dysregulation: development, factor structure, and initial validation of the difficulties in emotion regulation scale. J Psychopathol Behav Assess. 2004;26(1):41–54. https://doi.org/10.1023/B:Joba.0000007455.08539.94.
54. Berking M, Whitley B. The adaptive coping with emotions model (ACE model). Affect Regulation Training: Springer; 2014. p. 19–29.

55. Aldao A, Nolen-Hoeksema S, Schweizer S. Emotion-regulation strategies across psychopathology: a meta-analytic review. Clin Psychol Rev. 2010;30(2):217–37. https://doi.org/10.1016/j.cpr.2009.11.004.
56. Koole S. The psychology of emotion regulation: an integrative review. Cognit Emot. 2009;23(1):4–41. doi:Pii 906986882. https://doi.org/10.1080/02699930802619031.
57. Tull MT, Aldao A. Editorial overview: new directions in the science of emotion regulation. Curr Opin Psychol. 2015;3(3):Iv–X. https://doi.org/10.1016/j.copsyc.2015.03.009.
58.• Hallion LS, Steinman SA, Tolin DF, Diefenbach GJ. Psychometric properties of the Difficulties in Emotion Regulation Scale (DERS) and its short forms in adults with emotional disorders. Front Psychol. 2018;9:539. https://doi.org/10.3389/fpsyg.2018.00539 **This article examines the psychometric properties of the Difficulties in Emotion Regulation Scale and provides an overview of the highly influential ability-based model from which it is derived.**
59. Besharat MA, AbdollahKhani S, Gholamali LM. The mediating role of emotion regulation difficulty on the relationship between attachment pathologies and sexual disorders. J Fam Psychol. 2018;5(1):3–16.
60. Tutino JS, Ouimet AJ, Shaughnessy K. How do psychological risk factors predict sexual outcomes? A comparison of four models of young women's sexual outcomes. J Sex Med. 2017;14(10):1232–40.
61.• Vasconcelos P, Oliveira C, Nobre P. Self-Compassion, emotion regulation, and female sexual pain: a comparative exploratory analysis. J Sex Med. 2020;17(2):289–99. https://doi.org/10.1016/j.jsxm.2019.11.266 **This study found women who self-reported symptoms consistent with sexual dysfunction reported greater difficulties in emotion regulation relative to women who reported no sexual complaints.**
62. Sarin S, Amsel R, Binik YM. A streetcar named "derousal"? A psychophysiological examination of the desire-arousal distinction in sexually functional and dysfunctional women. J Sex Res. 2016;53(6):711–29. https://doi.org/10.1080/00224499.2015.1052360.
63. Foley S. Biopsychosocial assessment and treatment of sexual problems in older age. Curr Sex Health Rep. 2015;7(2):80–8.
64. Tull MT, Gratz KL. Major depression and risky sexual behavior among substance dependent patients: the moderating roles of distress tolerance and gender. Cogn Ther Res. 2013;37(3):483–97. https://doi.org/10.1007/s10608-012-9490-3.
65. Montgomery-Graham S. Out-of-control sexual behavior in women. Curr Sex Health Rep. 2017;9(4):200–6.
66. Briere J, Runtz M. The Inventory of Altered Self-Capacities (IASC): a standardized measure of identity, affect regulation, and relationship disturbance. Assessment. 2002;9(3):230–9. https://doi.org/10.1177/1073191102009003002.
67. Bigras N, Daspe ME, Godbout N, Briere J, Sabourin S. Cumulative childhood trauma and adult sexual satisfaction: mediation by affect dysregulation and sexual anxiety in men and women. J Sex Marital Ther. 2017;43(4):377–96. https://doi.org/10.1080/0092623X.2016.1176609.
68. Mangassarian S, Sumner L, O'Callaghan E. Sexual impulsivity in women diagnosed with borderline personality disorder: a review of the literature. Sex Addict Compul J Treat Prevent. 2015;22(3):195–206. https://doi.org/10.1080/10720162.2015.1017781.
69. Ciocca G, Ochoa S, Jannini EA. Epidemiology of sexual dysfunctions in persons suffering from psychiatric disorders. Sexual Dysfunctions in Mentally Ill Patients: Springer; 2018. p. 41–51.
70. Karan E, Niesten IJ, Frankenburg FR, Fitzmaurice GM, Zanarini MC. Prevalence and course of sexual relationship difficulties in recovered and non-recovered patients with borderline personality disorder over 16 years of prospective follow-up. Personal Ment Health. 2016;10(3):232–43. https://doi.org/10.1002/pmh.1327.
71. Collazzoni A, Ciocca G, Limoncin E, Marucci C, Mollaioli D, Di Sante S, et al. Mating strategies and sexual functioning in personality disorders: a comprehensive review of literature. Sex Med Rev. 2017;5(4):414–28. https://doi.org/10.1016/j.sxmr.2017.03.009.
72. Chapman AL. Borderline personality disorder and emotion dysregulation. Dev Psychopathol. 2019;31(3):1143–56. https://doi.org/10.1017/S0954579419000658.
73. Ciocca G, Limoncin E, Di Tommaso S, Gravina GL, Di Sante S, Carosa E, et al. Alexithymia and vaginismus: a preliminary correlation perspective. Int J Impot Res. 2013;25(3):113–6. https://doi.org/10.1038/ijir.2013.5.
74. Wise TN, Osborne C, Strand J, Fagan PJ, Schmidt CW Jr. Alexithymia in patients attending a sexual disorders clinic. J Sex Marital Ther. 2002;28(5):445–50. https://doi.org/10.1080/00926230290001556.
75. Roemer L, Williston SK, Rollins LG. Mindfulness and emotion regulation. Curr Opin Psychol. 2015;3:52–7. https://doi.org/10.1016/j.copsyc.2015.02.006.
76. Newcombe BC, Weaver AD. Mindfulness, cognitive distraction, and sexual well-being in women. Can J Hum Sex. 2016;25(2):99–108. https://doi.org/10.3138/cjhs.252-A3.
77. Pepping CA, Cronin TJ, Lyons A, Caldwell JG. The effects of mindfulness on sexual outcomes: the role of emotion regulation. Arch Sex Behav. 2018;47(6):1601–12. https://doi.org/10.1007/s10508-017-1127-x.
78. Dosch A, Rochat L, Ghisletta P, Favez N, Van der Linden M. Psychological factors involved in sexual desire, sexual activity, and sexual satisfaction: a multi-factorial perspective. Arch Sex Behav. 2016;45(8):2029–45. https://doi.org/10.1007/s10508-014-0467-z.
79. Aldao A, Tull MT. Putting emotion regulation in context. Curr Opin Psychol. 2015;3:100–7. https://doi.org/10.1016/j.copsyc.2015.03.022.
80. Berking M, Wupperman P. Emotion regulation and mental health: recent findings, current challenges, and future directions. Curr Opin Psychiatry. 2012;25(2):128–34. https://doi.org/10.1097/YCO.0b013e3283503669.
81. Engman L, Flink IK, Ekdahl J, Boersma K, Linton SJ. Avoiding or enduring painful sex? A prospective study of coping and psychosexual function in vulvovaginal pain. Eur J Pain. 2018;22(8):1388–98. https://doi.org/10.1002/ejp.1227.
82. Ter Kuile MM, Melles R, de Groot HE, Tuijnman-Raasveld CC, van Lankveld J. Therapist-aided exposure for women with lifelong vaginismus: a randomized waiting-list control trial of efficacy. J Consult Clin Psychol. 2013;81(6):1127–36. https://doi.org/10.1037/a0034292.
83. Bergeron S, Khalife S, Dupuis MJ, McDuff P. A randomized clinical trial comparing group cognitive-behavioral therapy and a topical steroid for women with dyspareunia. J Consult Clin Psychol. 2016;84(3):259–68. https://doi.org/10.1037/ccp0000072.
84. DePesa NS, Cassisi JE. Affective and autonomic responses to erotic images: evidence of disgust-based mechanisms in female sexual interest/arousal disorder. J Sex Res. 2017;54(7):877–86. https://doi.org/10.1080/00224499.2016.1252307.
85. Jack DC. Silencing the self: women and depression: Harvard University Press; 1991.
86. Abrams JA, Hill A, Maxwell M. Underneath the mask of the Strong Black Woman schema: disentangling influences of strength and self-silencing on depressive symptoms among US black women. Sex Roles. 2019;80(9–10):517–26. https://doi.org/10.1007/s11199-018-0956-y.
87. Peleg-Sagy T, Shahar G. Female medical students' (silencing the) self: effects on depression and dyadic/sexual dissatisfaction. Self Identity. 2015;14(4):420–40. https://doi.org/10.1080/15298868.2015.1008031.

88. Gillen MM, Markey CH. A review of research linking body image and sexual well-being. Body Image. 2019;31:294–301. https://doi.org/10.1016/j.bodyim.2018.12.004.
89. Giraldi A, Rellini AH, Pfaus J, Laan E. Female sexual arousal disorders. J Sex Med. 2013;10(1):58–73. https://doi.org/10.1111/j.1743-6109.2012.02820.x.
90. Crisp C, Vaccaro C, Fellner A, Kleeman S, Pauls R. The influence of personality and coping on female sexual function: a population survey. J Sex Med. 2015;12(1):109–15. https://doi.org/10.1111/jsm.12735.
91. Desrochers G, Bergeron S, Khalife S, Dupuis MJ, Jodoin M. Fear avoidance and self-efficacy in relation to pain and sexual impairment in women with provoked vestibulodynia. Clin J Pain. 2009;25(6):520–7. https://doi.org/10.1097/AJP.0b013e31819976e3.
92. Gerrior KG, Watt MC, Weaver AD, Gallagher CE. The role of anxiety sensitivity in the sexual functioning of young women. Sex Relation Ther. 2015;30(3):351–63. https://doi.org/10.1080/14681994.2015.1018885.
93. Ekdahl J, Flink I, Engman L, Linton SJ. Vulvovaginal pain from a fear-avoidance perspective: a prospective study among female university students in Sweden. Int J Sex Health. 2018;30(1):49–59. https://doi.org/10.1080/19317611.2017.1404543.
94. Anderson AB, Rosen NO, Price L, Bergeron S. Associations between penetration cognitions, genital pain, and sexual well-being in women with provoked vestibulodynia. J Sex Med. 2016;13(3):444–52. https://doi.org/10.1016/j.jsxm.2015.12.024.
95. Benoit-Piau J, Bergeron S, Brassard A, Dumoulin C, Khalife S, Waddell G, et al. Fear-avoidance and pelvic floor muscle function are associated with pain intensity in women with vulvodynia. Clin J Pain. 2018;34(9):804–10. https://doi.org/10.1097/AJP.0000000000000604.
96.• O'Sullivan LF, Wuest J, Byers ES. Figuring it out: how late adolescent and young adult men and women perceive and address problems in sexual functioning. J Sex Res. 2019;56(3):327–36 **In this qualitative study, problem solving emerged as a common strategy for managing sexual distress and low desire among adolescents.**
97. Enjezab B, Salehichampiri M, Mahmoodabadi HZ, Molaeinezhad M (2019). The effectiveness of problem-solving approach consulting on sexual satisfaction of married women: a single case method. Journal of Advanced Pharmacy Education & Research Apr-Jun.;9(S2).
98. Boerner KE, Rosen NO. Acceptance of vulvovaginal pain in women with provoked vestibulodynia and their partners: associations with pain, psychological, and sexual adjustment. J Sex Med. 2015;12(6):1450–62. https://doi.org/10.1111/jsm.12889.
99. Brotto LA, Bergeron S, Zdaniuk B, Basson R. Mindfulness and cognitive behavior therapy for provoked vestibulodynia: mediators of treatment outcome and long-term effects. J Consult Clin Psychol. 2020;88(1):48–64. https://doi.org/10.1037/ccp0000473.
100. Surti K, Langeslag SJE. Perceived ability to regulate love. PLoS One. 2019;14(5):e0216523. https://doi.org/10.1371/journal.pone.0216523.
101. Rosen NO, Dube JP, Corsini-Munt S, Muise A. Partners experience consequences, too: a comparison of the sexual, relational, and psychological adjustment of women with sexual interest/arousal disorder and their partners to control couples. J Sex Med. 2019;16(1):83–95. https://doi.org/10.1016/j.jsxm.2018.10.018.
102. Rehman US, Lizdek I, Fallis EE, Sutherland S, Goodnight JA. How is sexual communication different from nonsexual communication? A moment-by-moment analysis of discussions between romantic partners. Arch Sex Behav. 2017;46(8):2339–52. https://doi.org/10.1007/s10508-017-1006-5.
103. Campos JJ, Walle EA, Dahl A, Main A. Reconceptualizing emotion regulation. Emot Rev. 2011;3(1):26–35. https://doi.org/10.1177/1754073910380975.
104. Koole SL, Veenstra L. Does emotion regulation occur only inside people's heads? Toward a situated cognition analysis of emotion-regulatory dynamics. Psychol Inq. 2015;26(1):61–8.
105. Barthel AL, Hay A, Doan SN, Hofmann SG. Interpersonal emotion regulation: a review of social and developmental components. Behav Chang. 2018;35(4):203–16. https://doi.org/10.1017/bec.2018.19.
106. Kenny DA, Kashy DA, Cook WL. Dyadic data analysis. New York: Guilford Press; 2006.
107. Nozaki Y, Mikolajczak M. Extrinsic emotion regulation. Emotion. 2020;20(1):10–5. https://doi.org/10.1037/emo0000636.
108. Zaki J, Williams WC. Interpersonal emotion regulation. Emotion. 2013;13(5):803–10. https://doi.org/10.1037/a0033839.
109. Horn AB, Samson AC, Debrot A, Perrez M. Positive humor in couples as interpersonal emotion regulation: a dyadic study in everyday life on the mediating role of psychological intimacy. J Soc Pers Relat. 2019;36(8):2376–96. https://doi.org/10.1177/0265407518788197.
110. Jakubiak BK, Feeney BC. Affectionate touch to promote relational, psychological, and physical well-being in adulthood: a theoretical model and review of the research. Personal Soc Psychol Rev. 2017;21(3):228–52. https://doi.org/10.1177/1088868316650307.
111. Rancourt KM, MacKinnon S, Snowball N, Rosen NO. Beyond the bedroom: cognitive, affective, and behavioral responses to partner touch in women with and without sexual problems. J Sex Res. 2017;54(7):862–76. https://doi.org/10.1080/00224499.2016.1217297.
112. Goldey KL, Posh AR, Bell SN, van Anders SM. Defining pleasure: a focus group study of solitary and partnered sexual pleasure in queer and heterosexual women. Arch Sex Behav. 2016;45(8):2137–54. https://doi.org/10.1007/s10508-016-0704-8.
113. Lew-Starowicz M, Lewczuk K, Nowakowska I, Kraus S, Gola M. Compulsive sexual behavior and dysregulation of emotion. Sex Med Rev. 2019;8:191–205. https://doi.org/10.1016/j.sxmr.2019.10.003.
114. Wery A, Billieux J. Problematic cybersex: conceptualization, assessment, and treatment. Addict Behav. 2017;64:238–46. https://doi.org/10.1016/j.addbeh.2015.11.007.
115. Levenson RW, Haase CM, Bloch L, Holley SR, Seider BH. Emotion regulation in couples. In: Gross JJ, editor. Handbook of emotion regulation. New York, NY: The Guilford Press; 2014.
116. Ruan Y, Reis HT, Clark MS, Hirsch JL, Bink BD (2019). Can I tell you how I feel? Perceived partner responsiveness encourages emotional expression. Emotion.
117. van Overveld M, Borg C. Brief emotion regulation training facilitates arousal control during sexual stimuli. J Sex Res. 2015;52(9):996–1005. https://doi.org/10.1080/00224499.2014.948111.
118. Bannink F. Positive CBT: from reducing distress to building success. J Contemp Psychother. 2014;44(1):1–8.
119. Gable SL, Reis HT. Good news! Capitalizing on positive events in an interpersonal context. In: Adv Exp Soc Psychol: Elsevier; 2010. p. 195–257.
120. Johnson S, Zuccarini D. Integrating sex and attachment in emotionally focused couple therapy. J Marital Fam Ther. 2010;36(4):431–45. https://doi.org/10.1111/j.1752-0606.2009.00155.x.
121. Girard A, Woolley SR. Using emotionally focused therapy to treat sexual desire discrepancy in couples. J Sex Marital Ther. 2017;43(8):720–35. https://doi.org/10.1080/0092623x.2016.1263703.
122.• Stephenson KR, Kerth J. Effects of mindfulness-based therapies for female sexual dysfunction: a meta-analytic review. J Sex Res. 2017;54(7):832–49. https://doi.org/10.1080/00224499.2017.1331199 **This metanalysis found mindfulness-based therapy improved sexual outcomes among women with sexual dysfunction.**