

Original Article

The relationship between sexual inhibition and sexual excitation with female sexual function: The mediating role of difficulty in emotion regulation

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Abstract

Sexual function is a multidimensional phenomenon affected by various biological-psychological and social factors. The present study aimed to investigate the mediating role of difficulty in emotion regulation in the association of sexual inhibition and sexual excitation with female sexual function. The participants of this study comprised 665 females serving in the administrative departments of Tehran and Tabriz universities, who were selected by convenience sampling. The Difficulties in Emotion Regulation Scale (2004), Sexual Excitation/Sexual Inhibition Inventory for Women (2006), and Female Sexual Functioning Index (1993) were employed to collect the data. In addition, SPSS (23 Ver.) and LISREL (8.8 Ver.) software packages were used for data analysis. The results of structural equation modeling indicated that sexual inhibition and sexual excitation, both directly and indirectly (emotion dysregulation), affect women's sexual function. Evaluating the hypothetical model of the study employing the fitting indices revealed that the hypothetical model fits the measurement model (RFI = 0.98, NFI = 0.98, RMSEA = 0.032). Consistent with the dual control model, the results of this study showed that inhibition and sexual excitation affect the sexual function of women. In addition, the results showed that sexual inhibition and sexual excitation indirectly affect sexual function through difficulty in regulation emotion.

Keywords

Sexual inhibition
Sexual excitation
Emotion regulation
Sexual function

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Introduction

Sexual desire is one of the most private aspects of an individual's life. This desire is determined by various physiological, psychological, cultural factors along with interpersonal relationships and childhood development experiences. Sexual desire is so intertwined with the entirety of one's personality that it is practically impossible to consider sexual desire as a phenomenon independent from these components (Sadock et al., 2015). Furthermore, psychological, communicative, and environmental factors are regarded as the paramount parameters in terms of affecting sexual desire. In this regard, a comprehensive approach toward women's sexuality needs a greater understanding of psychological processes in addition to the physiological processes (McCabe et al., 2016). Biological, psychological, and social models are required for interpreting how the various stages of sexual response (desire, arousal, orgasm, and suppression) are interrelated in social contexts and interpersonal relationships (Nappi, 2015). It is imperative to identify predictors of sexual arousal and

consistency to revise or refine our models of sexual response, extend our knowledge of female sexual function and dysfunction, and strengthen psychometric evaluation of sexual response (Chivers et al., 2010).

The "Dual Control Model of Sexual Response" proposed by Bancroft and Janssen presents a valuable theoretical framework that allows examining sexual arousal and consistency in a theory-based approach (Bancroft & Janssen, 2000). Moreover, previous research has examined the factors that predispose individual experiencing sexual dysfunctions. Psychophysiological studies of sexual orientation have mainly overlooked issues linked to the variability of individuals in terms of response (Janssen & Bancroft, 2007). The main idea of this model is that there are separate and relatively independent sexual inhibition and excitation systems in the brain (Kurpisz et al., 2015), and the development of the sexual response depends on the relative activity of the respective inhibition and excitation processes (Sanders et al., 2008). In other words, the balance between the two systems resolve whether a sexual response occurs in a sexual situation or not (Kurpisz et al., 2015).

Although there is remarkable evidence to confirm the expected links between the inhibition system, behavioral activation, and psychological pathology, which are quite similar to sexual inhibition and arousal, findings from other studies suggest that the significance and extent of this link is, at best, moderate. For example, Johnson et al. (2003), conducting an epidemiological study, observed that permanent psychiatric diagnostic modes maintain only a smaller percentage of the variance referred to inhibition and behavioral activation scores. These findings, consistent with the principle of multiplicity, suggest that individuals with similar vulnerabilities, as a result of distinctive modulators and mediators, proceed quite differently (Johnson et al., 2003).

Yet, one of the factors that has received a lot of attention from researchers today as a mediating variable is emotion regulation (Patron et al., 2014; Taube-Schiff et al., 2015). Difficulty in regulating emotion can be defined as the use of inflexible strategies that may have been useful in the past or in certain cases; but now they cause the social, cognitive and interpersonal functioning of the person to be disrupted (Gratz & Roemer, 2004). Differences in regulate emotion ability and strategies can be conceptualized as more or less adaptive insofar as they reduce or maintain distress (Hofmann, 2014). In a longitudinal study with couples, more successful reduction negative emotions in women (i.e., faster reduction in emotional experience and behavior after negative emotional stimulation) was cross-sectionally associated with female greater sexual satisfaction (Bloch et al., 2014). In addition, more difficulty regulating negative emotions (e.g., low awareness and clarity of emotion when upset) has been associated with poorer adaptation to multiple clinical conditions (Doolan et al., 2017; Lutz et al., 2018).

Considering that, negative emotions in sexual situations are associated with decreased desire and arousal, as well as increased sexual distress; it can be concluded that deficits in regulate emotions negative ability may be associated with decrease quality and pleasure of sexual intercourse in women with sexual problems and their partners (Nobre & Pinto-Gouveia, 2008). Thus, the difficulty in regulating negative emotions has been suggested as a key mechanism influencing how Physiological factors (e.g., sexual inhibition, sexual excitation) affect Sexual function in a recent model of female's sexual dysfunction. In addition, Relative to controls, women with genito-pelvic pain and low sexual arousal and/or desire have far more difficulties with emotion regulation (Sarin et al., 2016; Vasconcelos et al., 2020). A review of the research literature shows that the role of sexual inhibition and arousal in women's sexual function has been studied; however, no research has been done on the role of emotional factors in the relationship between biological factors and female sexual function; Therefore, in this study, we investigated the mediating role of difficulty of emotion regulation in the relationship between sexual inhibition and sexual excitation and female sexual function.

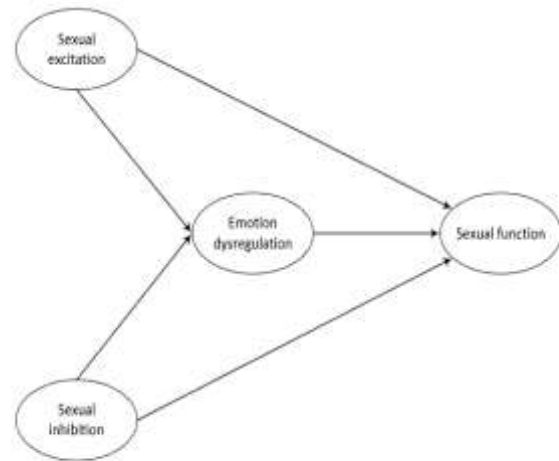


Figure 1. The hypothesized model of the role of the emotion dysregulation

Method

Participants

This research was descriptive-correlational study. The sample size should be between 440 and 880 individual participants as the minimum required number for when the model parameters (in the case of the present study's hypothetical model, 44 Parameters) are 10 to 20 variables (Kline, 2015). Accordingly, the total sample number selected in this study is 665 individuals by using availability sampling. The participants, who were from different districts of Tehran and Tabriz, were employed in the administrative departments of universities. Inclusion criteria were being a woman, over 18 years of age, and heterosexuality, being married. Exclusion criteria were being over 50 years of age and not answering over 10 percent of the questionnaires. The researcher provided the participants with a briefing session about the research, and the volunteering participants were then invited to participate in the research. The participants were asked to answer some questionnaires after signing the written consent form.

Instrument

The Sexual Excitation/Inhibition Inventory for Women:

The Sexual Excitation/Inhibition Inventory for Women was devised by Graham et al (Graham et al., 2006) to assess women's provocative and inhibitory responses. This tool is an extensively used and credible questionnaire comprising 36-Likert scale items. The questions were rated on a 4-point Likert scale from 1 (strongly agree) to 4 (strongly disagree), with lower scores indicating greater response inhibition and arousal. The results of factor analysis show that the questionnaire consists of two higher-level "sexual inhibition and arousal" factors along with eight lower-level factors. Five of these lower-level factors, namely arousal factors, sexual dynamics, Smell, sexual partner characteristics, and situation are associated with sexual

excitation factors. Meanwhile, three respective factors pertaining to the communication importance, concerning sexual function and potential arousal are linked to the sexual inhibition. The internal homogeneity for sexual arousal factor is 0.70, while sexual inhibition maintains a moderate internal homogeneity of 0.55, both via Cronbach's alpha (Graham et al., 2006). In the present study, Cronbach's alpha was 0.85 for SI and 0.76 for SI.

The Female Sexual Function Index:

The Female Sexual Function Index (FSFI) is an instrument with 19 questions to assess female sexual function in six aspects of libido, psychosexual arousal, lubrication or moisture, orgasm, sexual satisfaction, and pain. The items in this questionnaire are scored from 0 to 5. A zero score designates that the individual has not had sexual activity during the last four weeks. The cut-off point for the entire scale is 28, while the subscales are reported as libido 3.3, psychosexual arousal 3.4, lubrication 3.4, orgasms 3.4, satisfaction 3.8, and sexual pain 3.8. This questionnaire is a standard general questionnaire, with its reliability and validity being confirmed by Rosen et al (Rosen et al., 1993). Fakhri et al (Fakhri et al., 2014) reported the reliability coefficients of this scale between 0.72 and 0.90.

Difficulties in Emotion Regulation Scale (DERS):

The DERS (Gratz & Roemer, 2004) is a 36-item self-report measure of six facets of emotion regulation. Items are rated on a scale of 1 (almost never) to 5 (almost always). Sub-scales include: Non-acceptance of emotional responses, Difficulty engaging in Goal-directed behavior, Impulse control difficulties, limited access to effective emotion regulation strategies, lack of emotional awareness and lack of emotional clarity. Items 1, 2, 6, 7, 8, 10, 17, 20, 22, 24 and 34 are scored

in reverse. Total scores range from 36 to 180, with Higher scores indicate more difficulty in emotion regulation. This measure has shown excellent internal consistency, convergent, and criterion validity (Lee et al., 2016). Cronbach's alphas for the current sample were .97 for women and .96 for partners.

Procedure:

Data were collected from May through September 2020. The research was conducted in universities and private companies in Tehran and Tabriz, with researchers visiting and describing the research purpose to the female employees of the organization. Participants agreed to complete the questionnaires and did not receive any financial rewards. Participants' e-mail addresses were collected to provide detailed information on each individual's sexual performance status after reviewing the submitted questionnaire responses to motivate the participants.

SPSS²³ and LISREL ^{8.85} statistical software packages were employed to classify, process, and analyze the data and examine the research hypotheses. Data analysis was completed through a two-step approach (Anderson & Gerbing, 1988). In the first step, the confirmatory factor analysis (CFA) was applied to evaluate the measurement model's fit. In the second step, the hypothetical structural model was tested via the structural equation modeling method.

Results

A total of 665 subjects participated in this study. The mean and standard deviation of the age criterion in the present study are 34.39 and 6.58, respectively. Also, the age range is 18-55 years. The Descriptive statistics and Pearson correlation matrix of research variables are presented in Table 1.

Table 1. Descriptive statistics and Pearson correlation matrix of the relationship

Variables	Mean	Std-Deviation	Skewness	Kurtosis	1	2	3	4
Sexual Excitation	66.76	9.14	-0.505	-0.075	1			
Sexual Inhibition	33.18	8.45	0.246	-0.806	-0.506**	1		
Emotion Dysregulation	91.07	16.11	1.314	0.809	-0.607**	0.480**	1	
Sexual Function	26.22	4.23	-1.021	0.841	0.562**	-0.462**	-0.623**	1

(*P<0.05), (**P<0.01)

The assumptions for modeling structural equations, including the normality of univariate along with the absence of multiple alignments, were examined before evaluating the measurement model and the structural model. Calculating the Skewness and elongation of each observable variable is a standard technique to evaluate the normality of a single variable. In this study, the Skewness of the observable variables ranged between -1.021 and 1.314, and their Kurtosis was between -0.806 and 0.841. Chou and Bentler consider a ± 3 cut-off point to be appropriate for the Skewness (Chou & Bentler,

1995). Although there is little agreement concerning the cut-off point, values greater than ± 10 are generally problematic for this index, and values greater than ± 20 invalidate the obtained results (Kline, 2015). The examination of this matrix indicates the lack of any multiple alignments between them. Correlation coefficients range between 0.480 and -0.623. Correlation coefficients above 0.85 make it challenging to accurately estimate the model (Kline, 2015). SEM employing the maximum likelihood estimation method was performed to evaluate the measurement

model and the structural model. The measurement model identifies the correlation between observable variables and latent variables. Evaluation of this model is completed using the confirmatory factor analysis. The

fitting indices of the measurement model (Table 2) present the optimal fit of this model. Consequently, observable variables can operate latent variables.

Table 2. Fitting indices of the measurement model and the structural model

Fit indices	<i>Chi – Square</i>	<i>df</i>	χ^2/df	<i>RMSEA</i>	<i>SRMR</i>	<i>RFI</i>	<i>NFI</i>	<i>GFI</i>	<i>AGFI</i>
Measurement model	276.69	164	1.675	0.032	0.031	0.98	0.98	0.96	0.95
Structural model	276.69	164	1.675	0.032	0.031	0.98	0.98	0.96	0.95

Additionally, evaluation of the structural model using the SEM method revealed that all the fit indices of this hypothetical model are placed within the desired fit range. Fitting indices for this model are presented in Table 2. Fig. 1 illustrates a conceptual structural model with standard coefficients. Evidently, SE and SI as exogenous variables, with standard coefficients of -0.63 (T-values = -8.30), 0.36 (T-values = 3.68), 0.19 (T-values = 2.49) and -0.22 (T-values = -2.86) affects

emotion dysregulation, sexual function, respectively. Also, emotion dysregulation with standard coefficients of -0.31 (T-values = -4.51) affect women's sexual function. Since the significance of the path coefficient in the SEM is determined using the value of T (T-value), if the t-value is more than 1.96, the interrelation between the two structures is statistically significant. Overall, all paths are significant.

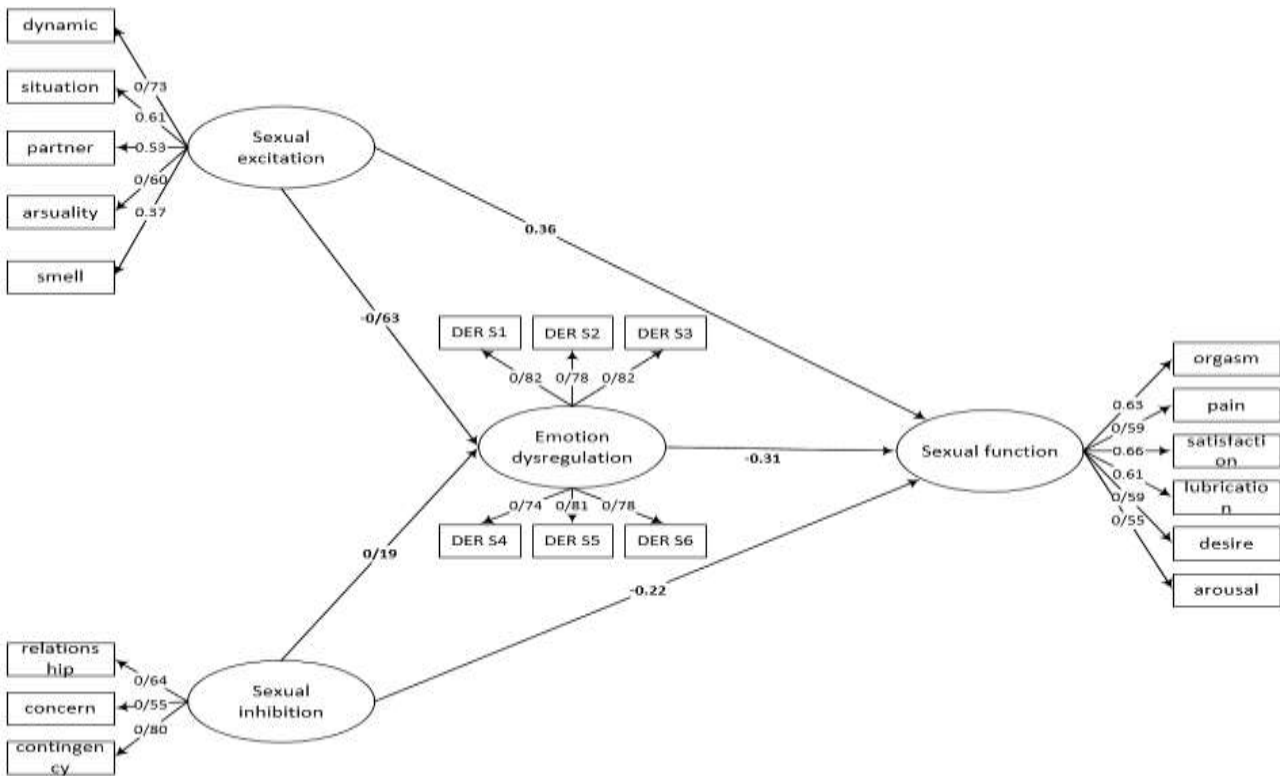


Figure 2. Structural model of research

In the present study, the Bootstrap test was applied to evaluate the mediating interrelations. Table 3 presents the results of this test. According to Table 3, the SI path to sexual function is mediated by emotion dysregulation

with a standard coefficient of -0.058 at the $p < 0.05$ level. The SE path to sexual function is not mediated by emotion dysregulation with a standard coefficient of 0.197 at the $p > 0.05$ level.

Table 3. Results Bootstrap test for mediating relations

independent variable	Mediator variable	dependent variable	bias-corrected bootstrap		Bootstrap standard errors	Effect size	significance level
			Lower bounds	upper bounds			
Sexual excitation	Emotion dysregulation	Sexual function	0.075	0.318	0.061	0.197	0.013
Sexual inhibition	Emotion dysregulation	Sexual function	-0.130	-0.005	0.034	-0.058	0.042

Discussion

This study examined the relationship between sexual inhibition, sexual excitation, and female sexual function along with similarly assessing the mediating role of difficulties in emotion regulation. The findings of the present study, consistent with the dual control model of sexual function (Janssen & Bancroft, 2007) and the findings of previous studies (Sanders et al., 2008; Velten et al., 2017), confirmed the relation between sexual inhibition, sexual excitation, and sexual function in women. The results of this study suggest that sexual inhibition is associated with women's sexual function, and this relation is mediated by difficulty in emotion regulation.

It has been reported that women who have higher sexual inhibition struggle with sexual function and orgasm (Sanders et al., 2008); also, those with higher sexual arousal tend to engage in high-risk sexual behaviors (Rettenberger et al., 2016). Consequently, in this study, sexual inhibition maintains a negative relation with sexual function (e.g. orgasm and sexual pleasure); i.e., the more sexual inhibition, the more problematic the sexual pleasure and reaching orgasm. Nobre (Nobre & Pinto-Gouveia, 2009) proposes that women with sexual dysfunction significantly activate patterns of loneliness/difference and seem to fail in performance. They attribute sex impotence to both their shortcomings and self-worth aspects, as well as to interpersonal aspects such as loneliness.

The results also show that sexual excitation, both directly and indirectly (through difficulty in emotion regulation), affect women's sexual function. This finding is consistent with the research conducted by Kuffel et al (Kuffel & Heiman, 2006). These authors revealed that women who scored higher on some components of sexual arousals, such as sexual dynamism (tendency to force or dominate sex), were more prone to encounter issues about orgasm. Concerning this incident, it can be argued that these women may be dependent on their partner's behavior or require a set of stimuli for arousal; and if these arousal conditions are not met, they are prone to face sexual problems. In other words, women who expressed high levels of sexual function held themselves accountable or were easily aroused by external sexual stimuli or sexual cues. They also reported more sexual arousal due to the dynamics of sexual power, for instance, in the face of a dominant sexual partner (Velten et al., 2017).

Accordingly, the data of this study reinforce the theoretical assumption of the dual control model that specific characteristics of SE and SI constitute predisposing aspects or risk factors for the occurrence of low sexual function. Yet, these findings require thorough and extensive consideration. The most significant finding of this study is confirming the mediating role of difficulties in emotion regulation. This study is the first to investigate difficulties in emotion regulation as a mediator between sexual inhibition,

sexual excitation, and sexual function in women. Confirming the hypothetical model's fit and the mediating role of difficulties in emotion regulation in this model, it was revealed that difficulties in emotion regulation play an important role in the formation of female sexual dysfunction. In explaining this finding, it can be said that the difficulty of regulating negative emotions interferes with purposeful behavior (Gratz & Tull, 2010); it is possible that partners find their attempts to sexually engage a partner with low interest/arousal and to manage the negative emotions that often accompany a desire discrepancy (Mark, 2015), thwarted by poor emotion regulation abilities.

The purpose of evaluating the role of difficulties in emotion regulation in the proposed model of this study is to assess the emotional and physiological aspects. Confirming the mediating role of emotion regulation suggests that attention to psychological aspects, particularly emotional aspects, is as important as paying attention to the physiological counterparts in pathology and treatment of female sexual dysfunction. Overall, it is concluded that evaluating the mediating role of emotion dys-regulation in the dual control model requires more attention. In this regard, Basson's circular model of sexual response demonstrates that the desire for emotional intimacy is the key motivation for seeking out or accepting a partner's sexual activity. Other clinical theories, such as Godinoff's sexual model, consider more emotionally responsive responses to sex (e.g., honest expression of feelings, empathetic response to sexual disclosure) as one of the key elements in maintaining sexual satisfaction over time.

Conclusion

The obtained results showed that emotion dysregulation mediated the relationship between sexual inhibition and excitation and female sexual function. We showed the importance of emotional variables in explaining women's sexual function. This variable, on the one hand, is affected by sexual inhibition and sexual excitation and, on the other hand, can have an important effect on the female sexual function.

Limitations

As mentioned earlier, sexual excitation and inhibition are relatively unchangeable mechanisms and therefore do not play an essential role in the treatment of sexual disorders. The important point of this research was that it highlighted the mediating role of psychological variables.

Although the findings support the hypothetical research model, the results of this study should be interpreted under the light of their constraints. First, the present study was conducted on a comparatively homogeneous population, limiting the results' generalization in the case of other populations. The other constraint is that the cross-sectional nature of this study prevents causal

inferences, and the precise recognition of interrelations between the variables is left obscure. The chronological order of variables' formation is presumably in line with the presented hypothetical model. Yet, it is impracticable to reject the other potential substitute cases based on this study. It is suggested to fit the current model on male gender and clinical samples. Also it is suggested that sex therapists pay more attention to psychological variables in addition to biological variables.

Compliance with ethical guidelines

All ethical principles were considered in this article. The participants were informed about the purpose of the research and its implementation stages and signed the informed consent. They were also assured of the confidentiality of their information. Moreover, they were allowed to leave the study whenever they wish, and if desired, the results of the research would be available to them.

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Authors' contributions

All authors contributed in designing, running, and writing all parts of the research.

Conflict of interest

The authors declared no conflict of interest.

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References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, *103*(3), 411. doi:10.1037/0033-2909.103.3.411
- Bancroft, J., & Janssen, E. (2000). The dual control model of male sexual response: A theoretical approach to centrally mediated erectile dysfunction. *Neuroscience & Biobehavioral Reviews*, *24*(5), 571-579. doi:10.1016/s0149-7634(00)00024-5
- Bloch, L., Haase, C. M., & Levenson, R. W. (2014). Emotion regulation predicts marital satisfaction: More than a wives' tale. *Emotion*, *14*(1), 130. doi:10.1037/a0034272
- Chivers, M. L., Seto, M. C., Lalumiere, M. L., Laan, E., & Grimbos, T. (2010). Agreement of self-reported and genital measures of sexual arousal in men and women: A meta-analysis. *Archives of sexual behavior*, *39*(1), 5-56. doi:10.1007/s10508-009-9556-9
- Chou, C.-P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. <https://psycnet.apa.org/record/1995-97753-003>
- Doolan, E. L., Bryant, R. A., Liddell, B. J., & Nickerson, A. (2017). The conceptualization of emotion regulation difficulties, and its association with posttraumatic stress symptoms in traumatized refugees. *Journal of Anxiety Disorders*, *50*, 7-14. doi:10.1016/j.janxdis.2017.04.005
- Fakhri, A., Morshedi, H., Soleymanian, A., & Hosaini, M. (2014). Psychometric Properties of Iranian Version of Male Sexual Function Index. *Jundishapur Scientific Medical Journal*, *12*(6). <https://www.magiran.com/paper/1225674?lang=en>
- Graham, C. A., Sanders, S. A., & Milhausen, R. R. (2006). The sexual excitation/sexual inhibition inventory for women: Psychometric properties. *Archives of Sexual Behavior*, *35*(4), 397-409. doi:10.1007/s10508-006-9041-7
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of psychopathology and behavioral assessment*, *26*(1), 41-54. doi:10.1023/B:JOBA.0000007455.08539.94
- Gratz, K. L., & Tull, M. T. (2010). Emotion regulation as a mechanism of change in acceptance-and mindfulness-based treatments. *Assessing mindfulness and acceptance processes in clients: Illuminating the theory and practice of change*, 107-133. <https://psycnet.apa.org/record/2010-08791-004>
- Hofmann, S. G. (2014). Interpersonal emotion regulation model of mood and anxiety disorders. *Cognitive therapy and research*, *38*(5), 483-492. doi:10.1007/s10608-014-9620-1
- Janssen, E., & Bancroft, J. (2007). The dual-control model: The role of sexual inhibition and excitation in sexual arousal and behavior. *The psychophysiology of sex*, *15*, 197-222.
- Johnson, S. L., Turner, R. J., & Iwata, N. (2003). BIS/BAS levels and psychiatric disorder: An epidemiological study. *Journal of psychopathology and behavioral assessment*, *25*(1), 25-36. doi:10.1023/A:1022247919288
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford publications.
- Kuffel, S. W., & Heiman, J. R. (2006). Effects of depressive symptoms and experimentally adopted schemas on sexual arousal and affect in sexually healthy women. *Archives of sexual behavior*, *35*(2), 160-174. doi:10.1007/s10508-005-9015-1

- Kurpisz, J., Mak, M., Lew-Starowicz, M., Nowosielski, K., & Samochowiec, J. (2015). The Dual Control Model of sexual response by J. Bancroft and E. Janssen. Theoretical basis, research and practical issues. *Postępy Psychiatrii i Neurologii*, *24*(3), 156-164. <https://link.springer.com/article/10.1007/s10508-020-01837-1>
- Lee, D. J., Witte, T. K., Bardeen, J. R., Davis, M. T., & Weathers, F. W. (2016). A factor analytic evaluation of the difficulties in emotion regulation scale. *Journal of clinical psychology*, *72*(9), 933-946. doi:10.1002/jclp.22297
- Lutz, J., Gross, R. T., & Vargovich, A. M. (2018). Difficulties in emotion regulation and chronic pain-related disability and opioid misuse. *Addictive behaviors*, *87*, 200-205. doi:10.1016/j.addbeh.2018.07.018
- Mark, K. P. (2015). Sexual desire discrepancy. *Current Sexual Health Reports*, *7*(3), 198-202. doi:10.1007%2Fs11930-015-0057-7
- McCabe, M. P., Sharlip, I. D., Atalla, E., Balon, R., Fisher, A. D., Laumann, E., Lee, S. W., Lewis, R., & Segraves, R. T. (2016). Definitions of sexual dysfunctions in women and men: a consensus statement from the Fourth International Consultation on Sexual Medicine 2015. *The journal of sexual medicine*, *13*(2), 135-143. doi:10.1016/j.jsxm.2015.12.019
- Nappi, R. E. (2015). Why are there no FDA-approved treatments for female sexual dysfunction? In: Taylor & Francis. doi:10.1517/14656566.2015.1064393
- Nobre, P. J., & Pinto-Gouveia, J. (2008). Cognitions, emotions, and sexual response: Analysis of the relationship among automatic thoughts, emotional responses, and sexual arousal. *Archives of Sexual Behavior*, *37*(4), 652-661. doi:10.1007/s10508-007-9258-0
- Nobre, P. J., & Pinto-Gouveia, J. (2009). Cognitive schemas associated with negative sexual events: A comparison of men and women with and without sexual dysfunction. *Archives of sexual behavior*, *38*(5), 842-851. doi:10.1007/s10508-008-9450-x
- Patron, E., Benvenuti, S. M., Favretto, G., Gasparotto, R., & Palomba, D. (2014). Depression and reduced heart rate variability after cardiac surgery: the mediating role of emotion regulation. *Autonomic Neuroscience*, *180*, 53-58. doi:10.1016/j.autneu.2013.11.004
- Rettenberger, M., Klein, V., & Briken, P. (2016). The relationship between hypersexual behavior, sexual excitation, sexual inhibition, and personality traits. *Archives of sexual behavior*, *45*(1), 219-233. doi:10.1007/s10508-014-0399-7
- Rosen, R. C., Taylor, J. F., Leiblum, S. R., & Bachmann, G. A. (1993). Prevalence of sexual dysfunction in women: results of a survey study of 329 women in an outpatient gynecological clinic. *Journal of Sex & Marital Therapy*, *19*(3), 171-188. doi:10.1080/00926239308404902
- Sadock, B. J., Sadock, V. A., & Ruiz, P. (2015). *Synopsis of psychiatry: behavioral sciences, clinical psychiatry*. Wolters Kluwer. <https://psycnet.apa.org/record/2014-37072-000>
- Sanders, S. A., Graham, C. A., & Milhausen, R. R. (2008). Predicting sexual problems in women: The relevance of sexual excitation and sexual inhibition. *Archives of sexual behavior*, *37*(2), 241-251. doi:10.1007/s10508-007-9235-7
- Sarin, S., Amsel, R., & Binik, Y. M. (2016). A streetcar named "Derousal"? A psychophysiological examination of the desire-arousal distinction in sexually functional and dysfunctional women. *The Journal of Sex Research*, *53*(6), 711-729. doi:10.1080/00224499.2015.1052360
- Taube-Schiff, M., Van Exan, J., Tanaka, R., Wnuk, S., Hawa, R., & Sockalingam, S. (2015). Attachment style and emotional eating in bariatric surgery candidates: The mediating role of difficulties in emotion regulation. *Eating behaviors*, *18*, 36-40. doi:10.1016/j.eatbeh.2015.03.011
- Vasconcelos, P., Oliveira, C., & Nobre, P. (2020). Self-Compassion, Emotion Regulation, and Female Sexual Pain: A Comparative Exploratory Analysis. *The Journal of Sexual Medicine*, *17*(2), 289-299. doi:10.1016/j.jsxm.2019.11.266
- Velten, J., Scholten, S., Graham, C. A., & Margraf, J. (2017). Sexual excitation and sexual inhibition as predictors of sexual function in women: A cross-sectional and longitudinal study. *Journal of Sex & Marital Therapy*, *43*(2), 95-109. doi:10.1080/0092623X.2015.1115792