Sexual Schemas and High-Risk Sexual Behaviors in Female Students: The Mediating Role of Cognitive Emotion Regulation

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Abstract

Aims: The present study aimed to investigate the mediating role of cognitive emotion regulation (CER) strategies in the relationship between sexual schemas and high-risk sexual behaviors (HRSBs). **Materials and Methods:** In a descriptive-correlational study, a sample of 426 persons were selected from all female students at Islamic Azad University of Shiraz using random cluster sampling during 2018–2019. The research instruments were High-Risk Sexual Behavior Questionnaire, CER Questionnaire, and Sexual Self-Schema Scale. Data were analyzed using SPSS software and LISREL software using structural equation modeling. **Results:** The findings revealed that there is a significant relationship between sexual schemas with HRSBs and CER. Furthermore, there is a significant relationship between CER and HRSBs. The relationship between sexual schemas and HRSBs was mediated by CER. This model has a good fit for the data. **Conclusions:** The results indicate the mediating role of CER strategies in the relationship between sexual schemas and HRSBs. Therefore, it seems necessary for specialists, therapists, and planners to consider the role of these variables when working with students, especially in counseling and treatment centers.

Keywords: Emotion regulation, sexual behaviors, students

INTRODUCTION

Sexual function is a part of human life and behavior, reflecting sexual health. Sexual health may lead to enjoyable sexual experiences;[1] however, one of the common issues in individuals' life is high-risk sexual behaviors (HRSBs) such as unprotected sex and sex with different partners.[2] As a result, the incidence of sexually transmitted diseases and infections such as AIDS and unwanted pregnancies is much higher in adolescents than in older individuals.[3] The prevalence of HRSBs in African countries is estimated to be 7%–47%.[4] For example, the prevalence rates of HRSBs are also reported to be 26, 63, and 64% in Uganda, Nigeria, and Botswana, respectively.[5] In Iran, the prevalence of HRSBs, including sex with a sexual partner, in students was 14.9 (3.4% for girls and 22.6% for boys).[6] The reported rates in other studies were 41%[7] and 19.5%.[8] These behaviors have raised serious public health concerns and have made researchers pay attention to HRSBs.[2]

HRBSs expose a person to infections and sexually transmitted diseases such as HIV and thus endanger individual health.[9] Factors associated with high-risk behaviors include poverty, early marriage, and financial needs,[5] age at onset of sexual behavior, and number of sexual partners.[10] The interaction of childhood abuse severity and sexual schemas better explains adolescents' sexual experiences.[2] Since sexual desire is a complex structure, its cognitive representations encompass attitudes, behaviors, responses to sexual cues, and sexual schemas.[11] Sexual schema refers to a person's stable cognitive generalization of himself or herself in sexual relationships, which is constructed by the past sexual experiences and guides the processing of social sexual information as well as future sexual behaviors.[12] Accordingly, a person's sexual

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schemas can evolve as he/she observes changes in his/her sexual behaviors and emotions over time.[13] A person's sexual schemas as a recorded history of his/her sexual history are a mechanism determining his/her sexual decisions, judgments, and behaviors in the present and the future.[14]

Female sexual function models have confirmed the significant role of schemas in sexual disorders, and evidence has revealed a significant relationship between sexual schemas with sexual function and sexual satisfaction.[15] The negative sexual schemas are related to poor sexual function.[16] The sexual schemas of embarrassed/conservative and romantic/passionate predict negative effects. Moreover, the lower levels of sexual satisfaction in the victims of childhood sexual abuse are partly mediated by the higher levels of negative effects.[17] Other studies have indicated that women with sexual dysfunction have weaker positive sexual schemas and stronger negative sexual schemas.[18]

Despite the documented relationship between sexual schemas and sexual function,[15-18] some researchers believe that sexual schemas affect women's behavioral treasures regarding sex and their emotional behaviors during sexual activity, depending on whether they have positive or negative sexual schemas.[19] Women with positive schemas are more likely to have new sex affairs and more positive emotions, to be more conservative, withdrawn in sex, less experienced, and suffer more during sexual relations.[11] When the schemas are negative, they create spontaneous thoughts preventing women from focusing on optimal sexual functions. The negative cognition evokes emotions such as anxiety, shame, or guilt.[20] These problems have highlighted the significance of considering emotion regulation strategies.[21]

Cognitive emotion regulation (CER) refers to an ability to understand and manage one's emotions and modify the experiences and expressions of these emotions. Researchers believe that negative and positive emotion regulation strategies are differently related to psychopathology.[22] A number of studies have confirmed the relationship between difficulties in emotion regulation and RSBs.[23-26] Although research has not examined the role of CER in the relationship between sexual schemas and HRSBs, according to schema therapy theory, emotion regulation strategies resulting from traumatic childhood experiences such as insecure attachment styles, traumatic childhood experiences, sexual neglect, and abuse[27] can be associated with psychological structures and sexual pathologies in later life. In line with such an idea, one study showed that childhood cumulative trauma is associated with impaired emotion regulation and sexual anxiety and indirectly reduces sexual satisfaction.[28] Amédée *et al*.[29] reported that rape victims have lower emotion regulation skills, leading to the higher levels of withdrawal from relationships and more social problems at school. Mueller and Peterson[25] also noted that the limitations in achieving emotion regulation strategies mediate the relationship between the childhood sexual abuse rate and the number of sexual partners in later life. Messman-Moore *et al*.[26] reported that the relationship between child abuse and three forms of RSBs (namely not using a condom, preventing pregnancy, and having sex with strangers under the influence of alcohol and drugs) was mediated by emotion regulation deficits.

Due to the importance of the prevention and control of these behaviors, more research needs to be conducted to address this variable with regard to its underlying and preventive causes. This is even more necessary at academic environments because the university is an appropriate place to offer educational programs to promote adults' health status. Therefore, the evaluation of the tendency to HRSBs and its related factors provides valuable information to advance students' education toward the needs and daily challenges and formulate and plan educational and training in accordance with the special needs of this group. Given the physical, psychological, social, family, and economic consequences of the tendency to violence and HRSBs, the role of intrapersonal and capable factors in preventing and reducing these behaviors should be considered. To this end and to complete the study results, a research question was raised to examine whether CER strategies mediate the relationship between sexual schemas and HRSBs.

MATERIALS AND METHODS

This descriptive research was a correlational study, whose statistical population consisted of all female students at Islamic Azad University of Shiraz during the academic year 2018–2019. Comrey suggests that the sample size of 100 is poor, 200 is relatively acceptable, 300 is acceptable, 500 is highly acceptable, and 1000 is excellent.[30] The sample participants were 500 persons, who were selected using a cluster sampling method. After obtaining the ethics license (No. IR.BUMS. REC.1398.221), the required arrangements were made with the authorities of Islamic Azad University of Birjand. Then, a list of courses (127 courses) was prepared and coded. From the selected codes, 10 codes (Botany, Chemical Engineering, Civil Engineering, Law, Microbiology, Persian Languages and Literatures, Political Science, Psychology, Pure Mathematics, and Translation Studies) were randomly selected, and three classes were selected from each course code. Inclusion criteria were studying at the Islamic Azad University of Shiraz and informed consent to participate in the research. Exclusion criteria also included reluctance to participate in the study or failure to complete the questionnaires. The ethical considerations of this study were an emphasis on information confidentiality and avoiding any harm to the participants. Data analysis was performed using descriptive and inferential statistics. To this end, the mean and standard deviation and structural equation modeling were used. Data were analyzed using SPSS and LISREL statistical software version 8.8 (IBM company, Armonk, NY, United States of America).

High-risk sexual behavior questionnaire
High-Risk Sexual Behavior Questionnaire (HRSBQ) was developed by Zarei *et al*.[31] It is a 10-item self-report

instrument, eight items of which are scored directly based on a 5-point Likert scale ranging from 0 to 4 and two items of which are scored reversely based on a 4-point Likert scale. The reliability of HRSBQ was calculated using retest method ($r = 0.68$), and Cronbach's alpha was estimated to be 0.86.[31] In the present study, exploratory factor analysis was performed, and a two-factor structure was extracted, which explained 71.73% of the variance in the questionnaire. The first factor was HRSB under the influence of drugs and the second factor was unusual sexual behavior. The reliability of the questionnaire estimated by Cronbach's alpha method was 0.82, 0.86, and 0.91 for the first, second, and all factors of the questionnaire, respectively.

Cognitive emotion regulation questionnaire

CER questionnaire (CERQ), developed by Garnefski *et al.*,[32] encompassed 36 items and is scored based on a 5-point Likert scale from ranging from 1 (almost never) to 5 (almost always). This measure has nine subscales which include self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing and other-blame. Cronbach's alpha coefficient has been reported for the subscales ranged from 0.71 to 0.81.[32] Besharat and Bazzazian[33] reported acceptable internal consistency, retest reliability and content, convergent, and discriminant validity for CERQ. Cronbach's alpha coefficient for the subscales ranged from 0.67 to 0.89.

Sex schema scale

Sexual Self-Schema Scale (SSS), developed by Andersen and Cyranowski,[34] has two separate forms for women and men. The female version consists of 50 traits, the subscales of which include passionate-romantic, open-direct, and embarrassed-conservative. It is scored based on a 7-point Likert scale ranging from not at all descriptive of me (0) to very

much descriptive of me (6). Cronbach's alpha coefficients for the whole scale and the three factors of passionate-romantic, open-direct, and embarrassed-conservative were 0.88, 0.81, 0.77, and 0.66, respectively. In addition, the reliability of the scale ranged from 0.65 to 0.80, which was determined with regard to the correlation between the scores of the subscales and the total score, indicating the acceptable reliability of the questionnaire.[34] Cronbach's alpha coefficients of this scale were 0.78, 0.70, and 0.66 for a sample of 190 nurses with regard to the three subscales and total score. Iranian studies also confirmed the content and criterion validity of the questionnaire.[35]

RESULTS

Of 500 distributed questionnaires, 426 questionnaires met the inclusion criteria for the analysis. Among the 426 persons, there were 311 persons (41.63%) aged below 25 years old, 179 persons (23.96%) aged between 25 and 30 years old, 110 persons (14.73%) aged between 31 and 35 years old, 87 persons (11.65%) aged between 36 and 40 years old, and 60 persons (8.03%) aged above 40 years old. Table 1 presents the correlation matrix of the variables. The correlation coefficients between the variables confirm the hypothesis indicating the lack of multiple alignments.

According to Table 1, the highest positive and significant correlation was observed between the component of positive refocusing and positive reappraisal of emotion regulation ($P < 0.01$). In addition, the lowest positive and significant correlation was observed between the positive reappraisal component of emotion regulation and the open-direct component of sexual schemas ($P > 0.05$). Figure 1 shows the path coefficients of the conceptual model, and Table 2 presents the path coefficients of the exogenous and endogenous variables.

Table 1: Correlation matrix of research variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1													
2	0.58**	1												
3	0.54**	0.49**	1											
4	0.16**	0.10**	0.16**	1										
5	0.14**	0.09	0.13**	0.75**	1									
6	0.13**	0.06	0.14**	0.71**	0.73**	1								
7	0.09	0.05	0.15**	0.70**	0.77**	0.71**	1							
8	0.17**	0.15**	0.14**	0.31**	0.26**	0.30**	0.27**	1						
9	0.30**	0.29**	0.17**	0.25**	0.24**	0.28**	0.21**	0.43**	1					
10	0.30**	0.26**	0.24**	0.40**	0.33**	0.28**	0.26**	0.54**	0.47**	1				
11	0.21**	0.18**	0.23**	0.26**	0.23**	0.18**	0.25**	0.51**	0.43**	0.53**	1			
12	0.24**	0.18**	0.22**	0.30**	0.35**	0.33**	0.36**	0.46**	0.42**	0.53**	0.52**	1		
13	0.16**	0.15**	0.17**	0.28**	0.28**	0.31**	0.27**	0.36**	0.24**	0.35**	0.33**	0.36**	1	
14	0.14**	0.16**	0.15**	0.24**	0.22**	0.24**	0.22**	0.22**	0.20**	0.28**	0.28**	0.25**	0.69**	1
Mean	31.72	23.43	21.76	9.98	10.37	10.28	10.11	11.36	10.95	11.54	11.57	11.48	13.08	7.67
SD	11.76	8.19	6.44	3.96	4.06	4.13	4.21	3.46	3.38	3.65	3.27	3.19	4.28	3.20

*$P<0.05$; **$P<0.01$. 1: Passionate-romantic, 2: Open-direct, 3: Embarrassed-conservative, 4: Acceptance, 5: Positive refocusing, 6: Refocus on planning, 7: Positive reappraisal, 8: Self-blame, 9: Catastrophizing, 10: Rumination, 11. Putting into perspective, 12: Other-blame, 13: Behavior under the influence of substances, 14: Unusual sexual behavior
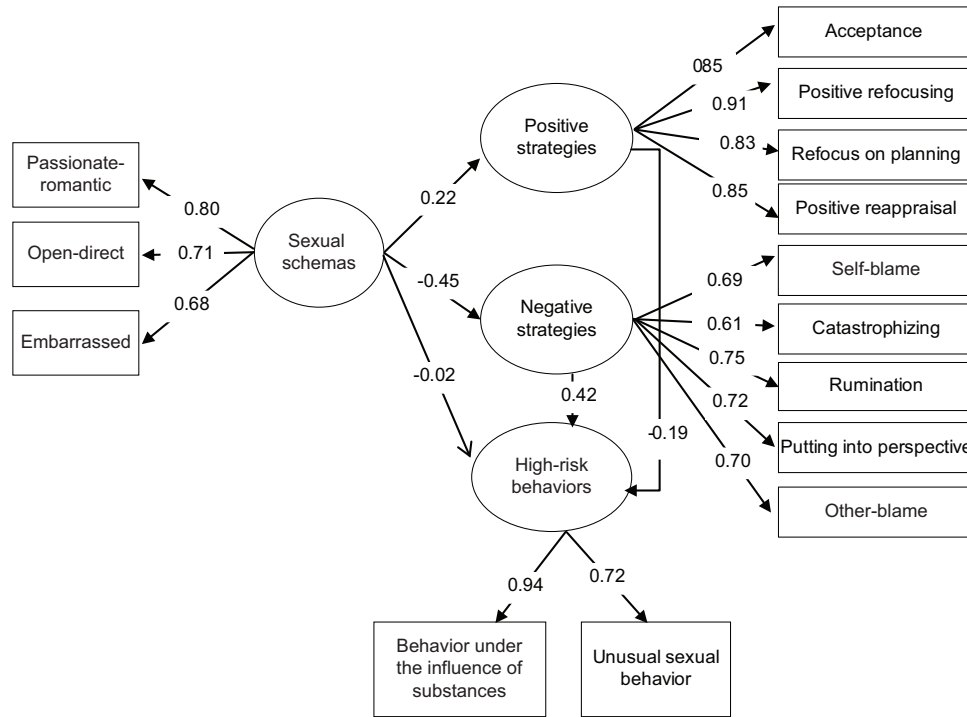
Figure 1: Path coefficients of conceptual model in modeling HRSBs based on sexual schemas

Table 2: Path coefficients of exogenous and endogenous variables

Effects	Predictor	Criterion	β	SE	t	P
Direct effects	Sexual schemas	On positive emotion regulation strategies	0.22	0.06	4.00	0.01
		On negative emotion regulation strategies	−0.45	0.06	−7.27	0.01
		On HRSBs	−0.02	0.06	−0.29	0.05
	Positive emotion regulation strategies	On HRSBs	−0.19	0.05	−3.74	0.01
	Negative emotion regulation strategies	On HRSBs	0.42	0.06	6.54	0.01
Indirect effects	From sexual schemas to HRSBs	Through positive and negative emotion regulation strategies	−0.23	0.04	−5.79	0.01
Total effects	From sexual schemas to HRSBs	Through positive and negative emotion regulation strategies	−0.25	0.06	−4.36	0.01

HRSBs: High-risk sexual behaviors, SE: Standard error

According to Figure 1 and Table 2, the direct effect of sexual schemas on positive emotion regulation strategies (β = 0.22) and HRSBs (β = −0.02) is significantly positive and significantly negative, respectively. In addition, positive emotion regulation strategies directly, negatively, and significantly affect HRSBs (β = −0.19); however, the direct effect of negative emotion regulation strategies on HRSBs (β = 0.42) is positive and significant. Moreover, the indirect effect of sexual schemas on HRSBs by positive and negative emotion regulation strategies (β = −0.23) is significantly negative.

The results show that the Chi-squared, GFI, AGFI, CFI, NFI, NNFI, RFI, and RMSEA fitness index are 0.94, 0.91, 0.97, 0.96, 0.97, 0.97, 0.95, and 0.061, respectively. When the GFI, CFI, and IFI values are >0.90 and RMSEA is <0.08, the researchers suggest that the model indicates adequate fitness.[36] Regarding the lack of some statistical indicators for the paths to statistical significance in the last stage, the model was modified based on the improvement indicators. Figure 2 shows the path coefficients of the correction model. After eliminating the direct path of sexual schemas to high-risk behaviors and by selecting the correction indices of the model, LISREL made suggestions to link acceptance error path to rumination, which reduced the χ^2 value by 26.92, thus making it closer to the fitted model. Postcorrection output had better-fit indices than precorrection. Although the results of the Chi-squared test show a decrease, it is not still fit (χ^2 = 160.01). GFI, AGFI, CFI, RFI, NFI, IFI, RMSEA, and NNFI fitness indices are 0.95, 0.93, 0.98, 0.96, 0.96, 0.98, 0.054, and 0.97, respectively.

The findings also showed that 5% and 20% of the observed variance in positive and negative emotion regulation strategies are explained by sexual schemas, respectively. In addition, 24% of the observed variance in HRSBs can be explained by a combination of sexual schema variables, positive emotion regulation strategies, and negative emotion regulation strategies.

Discussion

According to the findings, the relationship between sexual schemas and HRSBs is mediated by emotion regulation
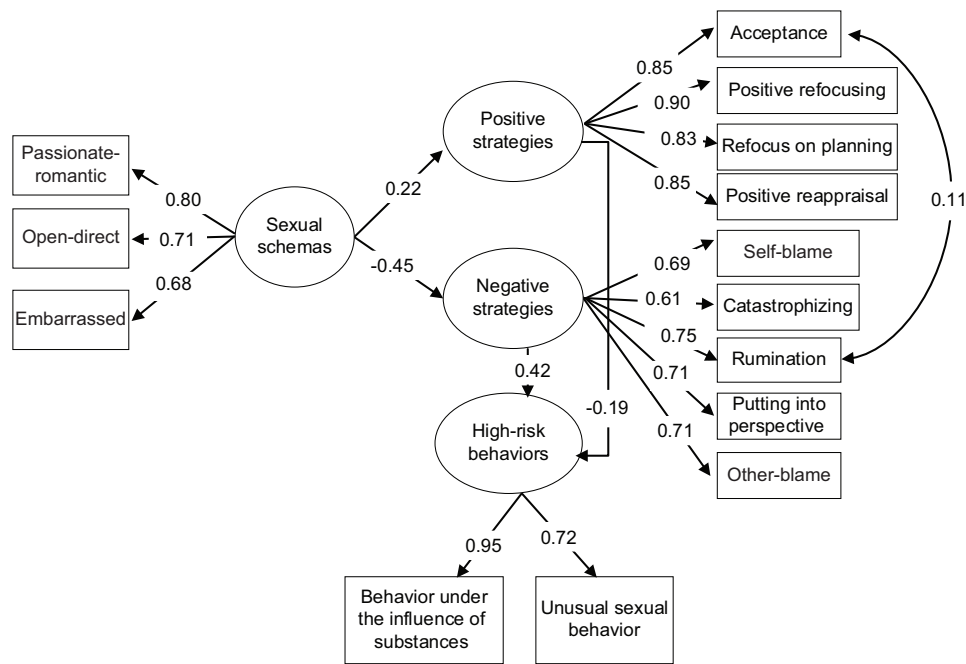
Figure 2: Corrective model path coefficients in modeling HRSBs based on sexual schemas

components. The results confirmed the significant role of positive and negative emotion regulation strategies in performing RSSBs among female students. These findings are consistent with those of previous studies that confirmed the role of emotion regulation in performing RSBs.[23-25,28,29,37-40] For example, they revealed a significant relationship between emotion regulation with early adolescents' sexual behaviors,[23] pornography use,[24] and sexual risk taking.[25]

Women with negative sex schemas are more conservative and feel more ashamed of sexual affairs. The studies have shown that negative sexual schemas are associated with worse sexual function in females. Moreover, women with a history of childhood sexual abuse have more negative sexual schemas and fewer positive sexual schemas.[16] Researchers believe that a person's sexual schemas can affect both cognitive processing and emotion regulation in response to sexually relevant information.[13] In general, failure to regulate emotions can be an underlying mechanism in the relationship between sexual history and RSSBs.[41] On the other hand, failure to regulate emotions can lead to failure in controlling behaviors, which is caused by an inability to cope with emotions.[42] These negative emotional experiences lead to increased bias in social perception and negative emotions. These experiences are associated with deviant sexual ideas and are an important factor in engagement in criminal sexual behaviors.[43] In this regard, individuals with poor emotion regulation skills are often to escape these negative emotions by using deviant behaviors such as drug and alcohol use or violent sexual behaviors. In the context of the emotion regulation model, the main reasons for such behaviors may be intense emotional responses, poor tolerance of anxiety, and lack of emotion regulation skills when experiencing provocative emotions. Although the exhibition

of such behaviors in the short term may reduce anxiety, the chronic use of maladaptive behaviors may have opposite effects and increase anxiety.[24]

Women with positive sexual schemas are generally more romantic and lustful and have a higher tendency to discuss their sexual problems and needs with their sexual partner. In his broaden-and-build theory of positive emotions, Fredrickson[44] states that positive emotions lead to a wider range of tendencies to action, as a result of which a wider range of thoughts and actions are evoked in mind. In addition, these positive emotions support creative thinking, reduce negative emotions, and can help a person cope with adversity by increasing one's psychological resilience. This model explains that positive emotions lead to consequences such as a broader coffin of thought–action, greater positive psychological resilience, and a reduction in the effects of previous negative sexual experiences. It has also been reported that, compared to those with negative sexual self-schemas, women with positive sexual self-schemas are generally more likely to engage in sexual affairs, have a wider range of sex-related behaviors, and have higher emotions that are positive during sexual activities. Furthermore, they have higher levels of arousal and their assessments of different sexual behaviors are more positive. In contrast, women with negative sexual self-schemas generally describe themselves as cold-tempered, non-romantic, and sexually inhibitory and hold more negative attitudes toward sex. These women also describe themselves as individuals who are judgmental of others, lack self-confidence, and hold conservative attitudes in these contexts. This would pose their potential vulnerability.[19]

In general, it can be noted that risky behaviors can be considered as a mechanism of emotion regulation, assisting

a person to cope with negative emotional states or increase positive emotional states.[25] According to the emotion regulation model, individuals can regulate their emotions before and after manifestation via cognitive pathways such as reappraisal and suppressing behavioral responses, respectively. In this regard, when a person is aware of the risks of sexual arousal under inappropriate conditions, he/she may focus on asexual stimuli or change his/her assessment of the condition. However, when sexual arousal develops in a person, he/she adopts avoidance or repression mechanisms.[45]

The present study has some limitations. The collected data were self-report; therefore, the likelihood of bias exists in their social utility. This study was a cross-sectional study with its findings indicating the relationships between variables but not the cause of such relationships. Future research can use multiple assessment methods such as behavioral observations or diagnostic interviews to increase its validity and reduce the likelihood of the response bias. The findings of this study have applications in the evaluation and treatment of HRSBs. According to the findings of this study, it is necessary to examine this mediating mechanism and its predictive structures and target therapeutic interventions of HRSBs. Further, following the screening and identification of susceptible students, necessary medical measures should be adopted to make less expensive tools for the rapid screening and identification of students with incompatible emotional settings.

Conclusions

The findings of the present study indicate the mediating role of CER strategies in the relationship between sexual schemas and HRSBs; hence, it seems necessary for specialists, therapists, and planners to consider the role of these variables when working on students, especially in counseling and treatment centers.

Acknowledgments

Conflicts of interest
There are no conflicts of interest.

References

1. Ziaei T, Farahmand Rad H, Rezaei Aval M, Roshandel GH. The relationship between sexual self-concept and sexual function in women of reproductive age referred to health centers in Gorgan, North East of Iran. JMRH 2017;5:969-77.
2. Potard C, Lancelot C, Courtois R. Examining relationships between sexual risk Safety behaviors and physical self-concept by gender: A cluster analytical approach. Emerg Adulthood 2018;7:31-44.
3. Finer LB, Zolna MR. Declines in unintended pregnancy in the United States, 2008-2011. N Engl J Med 2016;374:843-52.
4. Perera UA, Abeysena C. Prevalence and associated factors of risky sexual behaviors among undergraduate students in state universities of Western Province in Sri Lanka: A descriptive cross sectional study. Reprod Health 2018;15:105.
5. Amare T, Yeneabat T, Amare Y. A systematic review and meta-analysis of epidemiology of risky sexual behaviors in college and university students in Ethiopia, 2018. J Environ Public Health 2019;2019:4852130.
6. Zahedi R, Nasiri N, Zeinali M, Noroozi A, Hajebi A, Haghdoost AK, *et al*. The prevalence and associated factors of extra/pre-marital sexual behaviors among university students in Kerman, Iran. Int J High Risk Behav Addict 2019;8:e88266.
7. Vakilian K, Mousavi SA, Keramat A. Estimation of sexual behavior in the 18-to-24-years-old Iranian youth based on a crosswise model study. BMC Res Notes 2014;7:28.
8. Soleymani Nia L, Jazayeri A, Mohamad Khani P. The role of positive and negative mental health in adolescent's health risk behaviors. Social Welfare 2006;5:75-90.
9. Chawla N, Sarkar S. Defining "high-risk sexual behavior" in the context of substance use. J Psychosexual Health 2019;1:1-6.
10. Lima AS, Pitangui AC, Gomes MR, Mola R, Araujo RC. Risky sexual behaviors and their association with overweight and obesity among adolescent students: A cross-sectional study. Einstein (Sao Paulo) 2019;27;17:eAO4782.
11. Nowosielski K, Jankowski KS, Kowalczyk R, Kurpisz J, Normantowicz-Zakrzewska M, Krasowska A. Sexual self-schema scale for women-validation and psychometric properties of the polish version. Sex Med 2018;6:131-42.
12. Barnett MD, Maciel IV, Dao GT, Sligar KB. A Sociocognitive perspective of rape avoidance behavior: Relationships with sexual self-schemas. Pers Individ Differ 2019;151:109530.
13. Villanueva CH. How attachment, personality, and sexual self-schema influence sexual behavior. MSc Thesis. California State University, Sacramento; 2012.
14. Niehaus AF, Jackson J, Davies S. Sexual self-schemas of female child sexual abuse survivors: Relationships with risky sexual behavior and sexual assault in adolescence. Arch Sex Behav 2010;39:1359-74.
15. Kilimnik CH, Boyd RL, Stanton MA, Meston CM. Identification of nonconsensual sexual experiences and the sexual selfschemas of women: Implications for sexual functioning. Arch Sex Behav 2018;47:1633-47.
16. Li CC, Rew L, Chen L. Factors affecting sexual function: A comparison between women with gynecological or rectal cancer and healthy controls. Nurs Health Sci 2015;17:105-11.
17. Rellini AH, Meston CM. Sexual self-schemas, sexual dysfunction, and the sexual responses of women with a history of childhood sexual abuse. Arch Sex Behav 2011;40:351-62.
18. Kuffel SW, Heiman JR. Effects of depressive symptoms and experimentally adopted schemas on sexual arousal and affect in sexually healthy women. Arch Sex Behav 2006;35:163-77.
19. Kocak G. Sexual self-schemas: An Exploration of their Impact on Frequency of Masturbation and Sexual Activity, Sexual Satisfaction, and Marital Adjustment. MSc Thesis. Middle East Technical University; 2009.
20. Geonet M, Sutter PD, Zech E. Cognitive factors in women hypoactive sexual desire disorder. Sexologies 2013;22:e9-15.
21. Ford CA, Jaccard J. New skills to reduce sexual risk behaviors among young adolescents. Pediatrics 2018;141:e20174143.
22. McLean CP, Zang Y, Gallagher T, Suzuki N, Yarvis JS, Litz BT, *et al*. Trauma-related cognitions and cognitive emotion regulation as mediators of PTSD change among treatment-seeking active-duty military personnel with PTSD. Behav Ther 2019;50:1053-62.
23. Hadley W, Houck CD, Barker D, Senocak N. Relationships of parental monitoring and emotion regulation with early adolescents' sexual behaviors. J Dev Behav Pediatr 2015;36:381-8.
24. Darvish Molla M, Shirazi M, Nikmanesh, Z. The role of difficulties in emotion regulation and thought control strategies on pornography use. PCP 2018;6:119-28.
25. Mueller TM, Peterson ZD. The relationships among childhood maltreatment, emotion regulation, and sexual risk-taking in men from

urban STD clinics. J Aggress Maltreat Trauma 2012;21:277-99.

26. Messman-Moore TL, Walsh KL, DiLillo D. Emotion dysregulation and risky sexual behavior in revictimization. Child Abuse Negl 2010;34:967-76.

27. Fassbinder E, Schweiger U, Martius D, Brand-de Wilde O, Arntz A. Emotion regulation in schema therapy and dialectical behavior therapy. Front Psychol 2016;7:1373.

28. Bigras N, Daspe MÈ, 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;43:377-96.

29. Amédée LM, Tremblay-Perreault A, Hebert M, Cyr CH. Child victims of sexual abuse: Teachers evaluation of emotion regulation and social adaptation in school. Psychol Schs 2019;56:1077-88.

30. Hooman HA. Analysis of Multivariate Data in Behavioral Research. Tehran: Peyke Farhang; 2010.

31. Zarei F, Khakbaz H, Karami H. Determining the effectiveness of self-awareness skill training on reducing high-risk behaviors associated with the opposite sex addict. J Res Addict 2010;4:63-70.

32. Garnefski N, Kraaij V, Spinhoven P. Negative life events, cognitive emotion regulation, and emotional problems. Pers Individ Differ 2001;30:1311-27.

33. Besharat MA, Bazzazian S. Psychometri properties of the Cognitive Emotion Regulation Questionnaire in a sample of Iranian population. Adv Nurs Midwifery 2014;24:61-70.

34. Andersen BL, Cyranowski JM. Women's sexual self-schema. J Personalit Soc Psychol 1994;67:1079-100.

35. Mojtabaei M, Sabery H, Alizadeh A. Women sexual function: The role of sexual-self schema and body image. Health Psychol 2014;3:45-60.

36. Misra R, Crist M, Burant CJ. Relationships among life stress, social support, academic stressors, and reactions to stressors of international students in the United States. Int J Stress Manag 2003;10:137-57.

37. Hébert M, Langevin R, Oussaïd E. Cumulative childhood trauma, emotion regulation, dissociation, and behavior problems in school-aged sexual abuse victims. J Affect Disord 2018;225:306-12.

38. Sorouri F, Yaghubi H, Taremian H. The role of body image, negative emotions and sexual schema factors in predicting sexual dysfunction in women with breast cancer. Int J Indian Psychol 2017;4:138-52.

39. Weiss NH, Tull MT, Gratz KL. A preliminary experimental examination of the effect of emotion dysregulation and impulsivity on risky behaviors among women with sexual assault-related posttraumatic stress disorder. Behav Modif 2014;38:914-39.

40. Brough EJ. Positive Emotions and Sexual Desire Among Healthy Women. USA: PhD Dissertation, University of Michigan; 2009.

41. Garofalo C, López-Pérez B, Gummerum M, Hanoch Y, Tamir M. Emotion goals: What do sexual offenders want to feel? Int J Offender Ther Comp Criminol 2019;63:2611-29.

42. Kuo C, Johnson J, Rosen RK, Wechsberg W, Gobin RL, Reddy MK, *et al.* Emotional dysregulation and risky sex among incarcerated women with a history of interpersonal violence. Women Health 2014;54:796-815.

43. Parkhill MR, Pickett SM. Difficulties in emotion regulation as a mediator of the relationship between child sexual abuse victimization and sexual aggression perpetration in male college students. J Child Sex Abus 2016;25:674-85.

44. Fredrickson BL. The broaden-and-build theory of positive emotions. Philos Trans R Soc Lond B Biol Sci 2004;359:1367-78.

45. Rodriguez-Nieto G, Emmerling F, Dewitte M, Sack AT, Schuhmann T. The role of inhibitory control mechanisms in the regulation of sexual behavior. Arch Sex Behav 2019;48:481-94.