JECH
Journal of Education and Community Health
J Educ Community Health, 2023; 10(2):115-119. doi:10.34172/jech.2023.2122
http://jech.umsha.ac.ir

Brief Report

Sexual Cognition Among Iranian Women With Genital Pelvic Pain Disorder: A Short Communication

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Article history:
Received: November 21, 2022
Revised: June 18, 2023
Accepted: June 27, 2023
ePublished: June 30, 2023

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Abstract

Background: Genital misconceptions can lead to sex avoidance in women with genital pelvic pain and penetration disorder (GPPPD). Therefore, this study was conducted to examine the sexual cognition of Iranian women with GPPPD.

Methods: This comparative analytical descriptive study was performed on 200 GPPPD and non-GPPPD Iranian women who referred to women's clinics in Hormozgan province in 2021. In this study, availability samples were used, and data were collected using a demographic questionnaire and a localized vaginal penetration cognitive questionnaire. Statistical analysis was performed using SPSS version 25, and the significance level was assumed to be 0.05.

Results: The mean age of participants was 29.14±5.44 years. Mean scores for negative self-images, and catastrophic and control cognition were higher in the GPPPD group compared to the non-GPPPD group ($P<0.001$), while the mean scores of positive cognitions in the GPPPD group were lower ($P<0.001$).

Conclusion: The findings demonstrated that the beliefs and knowledge of women with GPPD should be corrected to promote their sexual health. Interventions should be designed to meet the needs of this group to improve sexual relationships and avoid sexual tension.

Keywords: Cognition, Pelvic pain, Women, Iran

Please cite this article as follows: Roozbeh N, Ghasemi V, Rezaei Ghamsari S, Banaei M. Sexual cognition among Iranian women with genital pelvic pain disorder: a short communication. J Educ Community Health. 2023; 10(2):115-119. doi:10.34172/jech.2023.2122

Introduction

Genital pelvic pain and penetration disorder (GPPPD) is a persistent or recurrent complication with at least one of the following findings, including the inability to experience vaginal penetration during intercourse, severe pain in the pelvis or vulvovaginal area, anxiety or fear during sex, penetration, and pelvic floor muscle contraction during vaginal penetration (1,2). Misconceptions about the genitals may be the basis to avoid sexual intercourse in these patients (3). Fear is the conditioned reaction refusal in all women of vaginal penetration, and this women with GPPPD can typically achieve vaginal penetration after the fear diminish (4). Sexual activity involves both body image and genital self-image, which are regarded as an individual's feelings and beliefs about his/her body and genitalia (5). The prevalence of negative mental image and genital incompatibility during vaginal penetration was high among women with vaginismus (1). The women with vaginismus may be unable to sense the tension of the vaginal muscles or to distinguish between relaxation and muscle spasm and may be unaware of their ability to voluntarily change the tension of vaginal muscles (6). Positive perceptions of sex lead to an increased sense of self-efficacy in these patients (7). Thus, the person's attention is unfocused from vulvovaginal pain and can pay attention to the pleasurable and satisfying aspects of sex life (8). One study recommends that increased sexual information can improve positive vaginal penetration attitudes and can also moderate catastrophic vaginal penetration cognitions (9). Therefore, when treating vaginismus, it is necessary

to identify the etiology of fear of vaginal penetration and consider different approaches to reduce anxiety and stress. Alizadeh et al reported that GPPPD prevalence was 10.5% among Iranian women (10). Due to the importance of GPPPD in the sexual quality of life and since a few studies have considered sexual cognition among women with GPPPD, the aim of this study was to examine the sexual cognition of Iranian women with GPPPD.

Materials and Methods

This comparative analytical descriptive study was conducted on 200 Iranian women with GPPPD and without GPPPD (100 per group) who referred to 6 women's clinics in Hormozgan province from May to August 2021 (One clinic in the center and 5 clinics in the west and east of the province). Using the statistical formula of $n=\frac{\left(Z_{1-\frac{\alpha}{2}}+Z_{1-\beta}\right)^2\left(S_1^2+S_2^2\right)}{d^2}$ ($\alpha=0.05$, $\beta=0.2$, $S_1=1.9$, $S_2=0.6$, $d=0.5$, and effect size $d=0.354$) and the study of Klaassen and Ter Kuile (11), the sample size of the study was estimated to be 200 women with GPPPD and without GPPPD. Availability sampling was used in this study. The inclusion criteria were women within the age range of 20-49 years old, having adequate literacy) literacy for reading and writing), involved in monogamous relationships, and experiencing sexual activity for at least 6 months, while the exclusion criteria were non-Iranian women and unwillingness to participate in the study. Women with GPPPD have experienced pain, spasm, and contraction during sexual intercourse or were unable to have intercourse, and demonstrated pain and spasm/contraction and avoidance behaviors as a response to the examination based on Disorders Diagnostic and Statistical Manual (Fourth Edition) criteria (10). The final diagnosis of GPPPD was by a midwife or gynecologist. The purpose of this study was explained to the participants, and they were assured of data confidentiality. For this purpose, questionnaires were provided to participants in an anonymous and encrypted format. In addition, they signed a written consent form without any force, threats, or seduction.

Data collection consisted of questionnaires measuring socio-demographic (age, education, economic situation, and the like) and sexual (number of sexual intercourses per month and awareness about female and male genitals) information and a standard localized vaginal penetration cognition questionnaire (VPCQ). In this study, to measure awareness about female and male genitals, two questions were employed that evaluated the level of awareness of women about the anatomy of male and female reproductive systems based on a scoring scale of 1-4 (low to high). The original version had 40 questions, which was shortened to a 22-item version when its initial validity and reliability were confirmed by Klaassen and Ter Kuile, and the questions of the tool are answered using a Likert-type scale from 0 (never) to 6 (always) (11,12). The validity (face, content, and structure) and reliability of this questionnaire were approved by Banaei et al. Cronbach's alpha and maximum reliability of all factors were acceptable. The absolute reliability of the tool was confirmed with a standard error of measurement of 2.67 and a minimal detectable change of 28% (13). The VPCQ has 20 items and three areas of catastrophic and control, positive, and self-image cognition.

The extracted data were statistically analyzed using the SPSS software, version 25 (SPSS Inc., Chicago, IL). Descriptive (Frequency, percentage, mean, and standard deviation [SD]) and inferential (Student's t-test and chi-square test) statistics were used for data analysis. The significance level was assumed to be 0.05 in this study.

Results

The mean age of participants was 29.14 ± 5.44. Most women in the GPPPD and non-GPPPD groups had a university education (84% and 83%, respectively), and 14% of the GPPPD groups had a poor economic situation. The majority of participants in both groups had no family relationship with their spouse (80% vs. 75% of controls). Mean scores for negative self-images, and catastrophic and control cognition were higher in the GPPPD group, while the mean scores of positive cognitions in the GPPPD group were lower compared to the non-GPPPD group ($P<0.001$, Table 1). The mean scores of awareness about females and genitals in the GPPPD group were lower ($P<0.001$).

Discussion

In this study, the results revealed that women with GPPPD had less sexual cognition and higher negative sexual beliefs than the comparison group, and their awareness score was lower than the comparison group. In fact, catastrophic domain is truly multidimensional and is a combination of activation, evaluation, and attention towards the harmful event experience, as well as coping with that experience (14). Catastrophic beliefs about vaginal penetration due to its direct relation to panic disorder experience in women with vaginismus and dyspareunia lead to fear response and avoidant behavior. This relationship demonstrates

Table 1. Comparison of Demographic and VPCQ Sub-area Items in GPPPD and Non-GPPPD Groups

Variables	GPPPD Group Mean ± SD/n (%)	Non-GPPPD Group Mean ± SD/n (%)	*P* Value
Age	28.35 ± 4.36	30.09 ± 6.39	0.023
Educational status			
Elementary and middle school	1 (1)	4 (4)	0.097
High school and diploma	15 (15)	13 (13)	
University education	84 (84)	83 (83)	
Economic situation			
Good	32 (32)	29 (29)	0.182
Moderate	54 (54)	56 (56)	
Poor	14 (14)	15 (15)	
Family relationship with the spouse			
Yes	80 (80)	75 (75)	0.067
No	20 (20)	25 (25)	
Duration of marriage (year)	4.01 ± 2.83	6.63 ± 6.01	<0.001
Number of sexual intercourse (per month)	6.37 ± 4.61	7.86 ± 3.98	0.012
Awareness about female genitals	1.89 ± 0.90	2.60 ± 1.08	<0.001
Awareness about male genitals	2.23 ± 1.09	2.75 ± 1.08	0.001
Vaginal penetration cognition			
Catastrophic and control cognition	55.14 ± 5.37	35.30 ± 13.32	<0.001
Positive cognition	7.53 ± 2.65	10.60 ± 4.24	<0.001
Self-image cognition	14.25 ± 2.10	11.77 ± 3.12	<0.001

Note. VPCQ: Vaginal penetration cognitive questionnaire; GPPPD: Genital pelvic pain and penetration disorder; SD: Standard deviation.

the perceived importance of control components (15). Increased fear of losing control during vaginal penetration in women with GPPPD (16) can reduce perceived penetration control and increase catastrophic pain recognition (17). A study on Iranian women with lifelong vaginismus showed that these women have similar experiences to women with sexual pain disorders (18). The effect of pain and pain prediction on the exacerbation of catastrophic thoughts and vaginal penetration fear are similar in women with sexual pain disorders (19). Reissing et al showed that women with vaginismus experience increased catastrophic pain when having intercourse or vaginal penetration, as well as increased frequency of avoidant-defensive distressing behaviors when examining the pelvis and higher levels. They also demonstrated emotional distress (20). The fear-avoidance model of vaginismus indicated that fear of penetration can be originated from inconsistent and catastrophic thoughts about vaginal penetration. This fear may lead to avoidance of sexual intercourse (19). Positive cognition was the second domain. Several studies reported lower positive cognitive domain scores in women with GPPPD (21). Moreover, the finding of another study in Iran represented that women with GPPPD had reduced positive cognition and increased disturbed thoughts and feelings. In fact, high intimacy and increased marital satisfaction, and positive treatment attitudes reduce the intensity of stress (22). In the current study, it was found that women with GPPPD do not have a good image of their bodies. Image is a complex mental structure that can influence personality via physiological, emotional, and behavioral concepts (23). Genital body image refers to the feelings and beliefs of an individual about his/her body and genitals, which are all involved in sexual activity (22). Klaassen and Ter Kuile reported that women with vaginismus had increased negative body image recognition and genital incompatibility (11). Based on the results of current research, for improving the sexual health of women with GPPPD and correcting their beliefs and knowledge, interventions should be designed to resolve their needs to improve sexual relationships and prevent sexual tension. Therefore, we recommend including cognitive dimensions of vaginal penetration in designing interventions to treat and provide sexual counseling to women with GPPPD (3). Considering that a self-reported questionnaire was used in the current study, there is a possibility of recall bias, which was the limitation of this study. The self-reported method was the weak point of this study. On the other hand, one of the strengths of this study was using standard questionnaires and a comparative design. Collecting data from 6 centers was another strength of this study.

Conclusion

The findings demonstrated that the beliefs and knowledge of women with GPPD should be corrected to promote their sexual health. Interventions should be designed to meet the needs of this group to improve sexual relationships and avoid sexual tension.

Acknowledgements

The authors would like to express their deepest thanks and appreciation to all sites and participants involved in this work,

in addition to the cooperation and assistance of the Research Administration of Hormozgan University of Medical Sciences, Bandar Abbas, Iran.

Authors' Contribution

Conceptualization: Nasibeh Roozbeh, Vida Ghasemi, Sepideh Rezaei Ghamsari, Mojdeh Banaei.
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Competing Interests

The authors declare that they have no conflict of interests.

Ethical Approval

The present study was approved by the Ethics Committee of Hormozgan University of Medical Sciences, Bandar Abbas, Iran (IR.HUMS.REC.1401.122).

References

1. Banaei M, Kariman N, Ozgoli G, Nasiri M. Bio-psychosocial factor of vaginismus in Iranian women. Reprod Health. 2021;18(1):210. doi: 10.1186/s12978-021-01260-2.
2. Banaei M, Kariman N, Ozgoli G, Nasiri M, Roozbeh N, Zare F. Sexual function among women with vaginismus: a biopsychosocial approach. J Sex Med. 2023;20(3):298-312. doi: 10.1093/jsxmed/qdac049.
3. Banaei M, Kariman N, Ozgoli G, Nasiri M, Khiabani A. Sexual penetration cognitions in women with genito-pelvic pain and penetration disorder: a systematic review and meta-analysis. Sex Relation Ther. 2021:1-15. doi: 10.1080/14681994.2021.1894327.
4. Peixoto MM, Nobre P. Prevalence and sociodemographic predictors of sexual problems in Portugal: a population-based study with women aged 18 to 79 years. J Sex Marital Ther. 2015;41(2):169-80. doi: 10.1080/0092623x.2013.842195.
5. Bergeron S, Likes WM, Steben M. Psychosexual aspects of vulvovaginal pain. Best Pract Res Clin Obstet Gynaecol. 2014;28(7):991-9. doi: 10.1016/j.bpobgyn.2014.07.007.
6. Dias-Amaral A, Marques-Pinto A. Female genito-pelvic pain/penetration disorder: review of the related factors and overall approach. Rev Bras Ginecol Obstet. 2018;40(12):787-93. doi: 10.1055/s-0038-1675805.
7. 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. doi: 10.1016/j.jsxm.2015.12.024.
8. Bokaie M, Bostani Khalesi Z, Yasini-Ardekani SM. Diagnosis and treatment of unconsummated marriage in an Iranian couple. Afr Health Sci. 2017;17(3):632-6. doi: 10.4314/ahs.v17i3.5.
9. Özkorumak Karagüzel E, Civil Arslan F, Tiryaki A, Osmanağaoğlu MA, Şimşek Kaygusuz E. Sociodemographic features, depression and anxiety in women with life-long vaginismus. Anadolu Psikiyatri Derg. 2016;17(6):489-95. doi: 10.5455/apd.215372.
10. Alizadeh A, Farnam F, Raisi F, Parsaeian M. Prevalence of and risk factors for genito-pelvic pain/penetration disorder: a population-based study of Iranian women. J Sex Med. 2019;16(7):1068-77. doi: 10.1016/j.jsxm.2019.04.019.
11. Klaassen M, Ter Kuile MM. Development and initial validation of the vaginal penetration cognition questionnaire (VPCQ) in a sample of women with vaginismus and dyspareunia. J Sex Med. 2009;6(6):1617-27. doi: 10.1111/j.1743-6109.2009.01217.x.
12. Lopez-Brull A, Perez-Dominguez B, Hernandez-Sanchez S, Rodriguez-Rodriguez AM, Nahon I, Blanco-Diaz M. Psychometric Properties of the Translated Spanish Version of the Vaginal Penetration Cognition Questionnaire: A Preliminary Work for Validation. Healthcare (Basel). 2023;11(10):1482. doi:10.3390/healthcare11101482.
13. Banaei M, Kariman N, Ozgoli G, Sharif Nia H, Nasiri M. Psychometric properties of vaginal penetration cognition questionnaire (VPCQ) in Iranian women with sexual pain disorders. Nurs Open. 2022;9(6):2739-49. doi: 10.1002/nop2.975.
14. Sullivan MJ, Thorn B, Haythornthwaite JA, Keefe F, Martin M, Bradley LA, et al. Theoretical perspectives on the relation between catastrophizing and pain. Clin J Pain. 2001;17(1):52-64. doi: 10.1097/00002508-200103000-00008.
15. Ley R. Dyspneic-fear and catastrophic cognitions in hyperventilatory panic attacks. Behav Res Ther. 1989;27(5):549-54. doi: 10.1016/0005-7967(89)90089-2.
16. Borg C, Peters ML, Schultz WW, de Jong PJ. Vaginismus: heightened harm avoidance and pain catastrophizing cognitions. J Sex Med. 2012;9(2):558-67. doi: 10.1111/j.1743-6109.2011.02535.x.
17. Doğan S, Varol-Saraçoğlu G, Erbek E. Validity and reliability of the Turkish version of the vaginal penetration cognition questionnaire (VPCQ) in a sample of women with vaginismus and dyspareunia. Anadolu Psikiyatri Derg. 2015;16(Suppl 1):1-9. doi: 10.5455/apd.167087.
18. Molaeinezhad M, Merghati Khoei E, Salehi M, Yousefy A, Latifnejad Roudsari R. Validation of the partner version of the multidimensional vaginal penetration disorder questionnaire: a tool for clinical assessment of lifelong vaginismus in a sample of Iranian population. J Educ Health Promot. 2014;3:114. doi: 10.4103/2277-9531.145913.
19. ter Kuile MM, Reissing ED. Lifelong vaginismus. In: Binik YM, Hall KS, eds. Principles and Practice of Sex Therapy. The Guilford Press; 2014. p. 177-92.
20. Reissing ED, Binik YM, Khalifé S, Cohen D, Amsel R. Vaginal spasm, pain, and behavior: an empirical investigation of the diagnosis of vaginismus. Arch Sex Behav. 2004;33(1):5-17. doi: 10.1023/B:ASEB.0000007458.32852.c8.
21. Teksin Ünal G, Şahmelikoğlu Onur Ö, Erten E. Comparison of vaginal penetration cognitions and metacognitions between women with genito-pelvic pain and penetration disorder and healthy controls. J Sex Med. 2020;17(5):964-74. doi: 10.1016/j.jsxm.2020.01.015.

22. Molaeinezhad M, Latifnejad Roudsari R, Yousefy A, Salehi M, Merghati Khoei E. Development and validation of the multidimensional vaginal penetration disorder questionnaire (MVPDQ) for assessment of lifelong vaginismus in a sample of Iranian women. J Res Med Sci. 2014;19(4):336-48.

23. Banaei M, Azizi M, Moridi A, Dashti S, Pormehr Yabandeh A, Roozbeh N. Sexual dysfunction and related factors in pregnancy and postpartum: a systematic review and meta-analysis protocol. Syst Rev. 2019;8(1):161. doi: 10.1186/s13643-019-1079-4.