


Genital self-image as predictor of sexual dysfunction in women with pelvic organ prolapse in Indonesia

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Abstract

Background: The incidence of sexual dysfunction increases in women with pelvic organ prolapse. In addition to physical factors, other important components that influence each other in sexual dysfunction are psychological aspects and genital self-image. Sociocultural factors also affect individual sexuality and sexual behavior. Until now, there are no data and the relationship between genital self-image and sexual dysfunction in pelvic organ prolapse is not known in Indonesia.

Objective: This study aims to analyze the correlation of genital self-image with sexual dysfunction in women with pelvic organ prolapse.

Methods: In this cross-sectional study, 113 consecutive women with pelvic organ prolapse were selected in urogynecology referral centers in Jakarta. Demographic data, physical examination, and guided interviews were filled in to complete the Female Sexual Function Index and Female Genital Self-Image Scale-7 questionnaires. Preliminary research has been carried out in the form of language translation and cultural validation of the Indonesian version of the Female Genital Self-Image Scale-7 questionnaires.

Results: There is a significant correlation between genital self-image and sexual dysfunction, where the lower Female Genital Self-Image Scale-7 score significantly predicts the lower Female Sexual Function Index score ($p < 0.000$; odds ratio: 14.17).

Conclusion: Genital self-image is the main variable that affects sexual function in women with pelvic organ prolapse. It is necessary to evaluate and treat genital self-image because sexual function is an integrated component of quality of life.

Keywords

eastern sexuality, Female Genital Self-Image Scale, female sexual dysfunction, Female Sexual Function Index, genital self-image, pelvic organ prolapse

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Introduction

Sexual function is one of the important components of life, therefore, sexual dysfunction can have a negative impact on health.¹ Sexual dysfunction is based on the concept of sexual response as part of a psychosomatic process that involves a psychological component and a somatic component.² The prevalence of sexual dysfunction in the general population is estimated to be 30%–50%.^{3,4} The prevalence of sexual dysfunction is increased in women with pelvic organ prolapse. Several studies

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have reported an association of sexual function with pelvic organ prolapse. The causative factors include psychological factors, including genital self-image, shame, concerns about partner's sexual satisfaction, and somatic factors such as discomfort due to pelvic organ prolapse, decreased genital sensation, and worsening of the prolapse condition. Handelzalts et al.⁵ reported low genital self-image is the main variable associated with poor overall sexual function. Genital image has a greater influence on poor sexual function than depression and age.

Sexuality plays an important role in human life and varies according to the complex interaction between genetic, biological, psychological, social, and cultural factors.⁶ Sociocultural factors influence and have an impact on individual sexuality and sexual behavior.⁶ Sociocultural differences between Eastern and Western societies will affect differences in sexuality and sexual function in women.⁶ In Indonesia, female sexual dysfunction receives a little attention and is even considered taboo. This attracts our curiosity about the correlation of genital self-image and sexual dysfunction in women with pelvic organ prolapse in Indonesia.

Aim

This study aims to analyze the correlation of genital self-image with sexual dysfunction in women with pelvic organ prolapse.

Method

This cross-sectional study was conducted in the Urogynecology Outpatient Clinic of Dr. Cipto Mangunkusumo Hospital and Fatmawati Hospital in Jakarta from July 2020 to April 2021. The study population included patients with pelvic organ prolapse who visited urogynecology outpatient clinic during the study period. Research subjects have received an explanation of the study protocol, signed an informed consent, and completed a questionnaire through a guided interview. The inclusion criteria in this study are pelvic organ prolapse women, sexually active at least for the last 4 weeks, and no history of gynecology surgery for the last 6 months. The exclusion criteria in this study are pelvic organ prolapse women with neurological and psychiatric disorders, women with gynecological diseases, and pregnant women. From 121 study population, 8 patients were excluded from the study because they did not meet the study criteria, consisting of 1 person with a neurological disorder, 1 person with a psychiatric disorder, 3 people with gynecological disorders, and 3 people refused to participate. The research population who became the subject of this study was 113 people. This research has been approved by the Ethics Committee of the Faculty of Medicine, University of Indonesia (No. KET-425/UN2.F1/ETIK/PPM.00.02/2020).

Questionnaire

Questionnaires containing demographic data, including age, parity, education, body mass index (BMI), menopausal status, vaginal delivery, and comorbidity, were filled out by research subjects, followed by the examination of Pelvic Organ Prolapse Quantification (POP-Q) system, anal wink, and bulbocavernosus reflexes.

The questionnaires used in this study were Female Sexual Function Index (FSFI) and Female Genital Self-Image Scale-7 (FGSIS-7).

FSFI is a questionnaire consisting of 19 questions and six domains of measuring women's sexual function in general. In this questionnaire, individual score domains include the following: 1.2–6 for urge, 0–6 for arousal, lubrication, orgasm, and pain, and 0.8–6 for satisfaction. The total score on this questionnaire is 2–36, where the lowest score indicates more severe symptoms of sexual dysfunction.⁷ Lee et al.⁸ reported an FSFI sensitivity of 89.9% and a specificity of 86.3%. This FSFI questionnaire has several advantages, including reliability moderately good and excellent internal consistency for total and sub-domain scores. Analysis of sensitivity and specificity with a score ≤ 26.55 showed that women experienced sexual dysfunction.

FGSIS is a suitable instrument to assess body image in women with pelvic organ prolapse. The study reports good evidence for content validity, internal consistency reliability, construct validity, criterion validity, responsiveness, and acceptability.⁹ Initially, language translation and validation of the FGSIS-7 questionnaires was carried out, which was used to assess genital self-image. FGSIS-7 assessed women's feelings and beliefs about their genitalia using a 4-point scale (strongly agree, agree, disagree, and strongly disagree). The total score ranges from 7 to 28, with the higher score indicating the more positive or better genital self-image.¹⁰ In this study, we use cut-off point ≤ 14 as low genital self-image and > 14 as high genital self-image.

Statistical analysis

SPSS version 20 for Windows was used for data management and statistical analysis. Bivariate analysis was carried out by testing the normality of the data using the Kolmogorov–Smirnov test. To determine the relationship between genital self-image and sexual dysfunction, the chi-square test was conducted. Data analysis was performed with 95% confidence level and 0.05. If the p -value was < 0.05 , it means that there is a significant relationship between the research variables studied. Multivariate logistic regression analysis was conducted to analyze the basic characteristics of the research subjects that affect sexual dysfunction. One hundred thirteen subjects were required to have 80% power to detect the specified difference using chi-square with 0.05 alpha level.

Results

In the early stages of the study, translation and cultural validation of the FGSIS-7 was carried out to assess genital self-image. The process of translating and validating the questionnaire followed a two-step translation protocol followed by cultural validation. The results of the validation test of the components of the Indonesian version of FGSIS-7 questionnaire with Spearman's test showed a strong correlation for all questions (seven questions) with an r value between 0.700 and 0.914, which indicated that the questionnaire questions were valid. The results of the reliability test of the components of the FGSIS-7 questionnaire showed that the value of Cronbach's alpha analysis was 0.852, which indicated that the FGSIS-7 questionnaire questions were reliable. The analysis of the interclass correlation coefficient is 0.852 with a confidence interval of 0.663–0.954.

There were differences between groups according to genital self-image status related to menopausal status, parity, comorbidity, degree of uterine prolapse, and degree of cystocele. In the groups of sexual dysfunction, there were differences in age group, education level, menopausal status, comorbidity, and cystocele degree.

Characteristics of the questionnaire scores were used in assessing genital self-image status and incidence of sexual dysfunction; the median FSFI score was 20.6 (range 6.2–35.6) and the mean FGSIS-7 score was 17.6 ± 4.2 .

From all research subjects, it was found that the frequency and percentage of low and high genital images were 37 (32.7%) and 76 (67.3%) people, respectively. Meanwhile, the frequency and percentage of sexual and non-sexual dysfunctions were 77 (68.1%) and 36 (31.9%) people, respectively. Subject characteristic is shown in Table 1.

Correlation of genital self-image and sexual dysfunction in women with pelvic organ prolapse

In this study, it was found that the median FSFI score per domain and the total FSFI score were higher in the high genital self-image group than in the low genital self-image group. This difference is statistically significant, as shown in Table 2.

This study found a statistically significant correlation between genital self-image status and the incidence of sexual dysfunction in women with pelvic organ prolapse, as shown in Table 3.

Multivariate logistic regression analysis on the characteristics of research subjects on sexual dysfunction found that low genital self-image and the degree of cystocele affected sexual dysfunction statistically as shown in Table 4.

Discussion

In this study, it was found that there were statistically significant differences in the characteristics of the research subjects on genital self-image. Parity is related to the characteristics of the genital self-image, where the higher the parity, the higher the characteristics of the genital self-image. This is related to women's perceptions of their genitals, which can experience topographic changes after childbirth.¹¹ Positive acceptance from partners can change women's perceptions of their genital image.^{12,13} The more severe the degree of uterine prolapse, the lower the genital image characteristics. This is related to pelvic organ prolapse that affects self-image, which causes women to be reluctant to become more intimate with their partners.¹⁴

Correlation of genital image and sexual dysfunction in women with pelvic organ prolapse

This study found a significant relationship between genital image and sexual dysfunction in women with pelvic organ prolapse. The domain of drive disorders, arousal disorders, lubrication disorders, orgasmic disorders, satisfaction disorders, and pain in women with pelvic organ prolapse who experienced sexual dysfunction were significantly affected by genital image. Another cofactor that influences the incidence of sexual dysfunction in this study is the degree of cystocele. The higher the degree of cystocele, the higher the incidence of sexual dysfunction.

The degree of cystocele is related to the incidence of sexual dysfunction. Cystocele often occurs with complaints of the urinary tract and will cause increased frequency of urination and urinary tract infections. Research by Balzarro et al.¹⁵ found that cystocele repair surgery did not affect sexual function, but the FSFI score that assessed sexual function had increased after surgery. Research by Shahghaibi et al.¹⁶ found that fear of protrusion of the bladder into vaginal during sexual intercourse will cause withdrawal from sexual intercourse and affect the quality of sexual intercourse in women with pelvic organ prolapse.

A study with similar results was conducted by Handelzalts et al.⁵ where genital self-image is the main variable associated with overall sexual function in women with pelvic floor dysfunction. Roos et al.¹⁷ found that sexual function in women with pelvic organ prolapse and/or urinary incontinence is closely related to the woman's body image.¹⁸ Studies by Lowenstein et al.¹⁸ and Lowder et al.¹⁹ reported that poor sexual function was associated with the severity of prolapse symptoms and poor body image. Different research results were shown by Berman in 2003, that genital image was not associated with overall sexual dysfunction, but only with the domain of sexual drive.²⁰

Table 1. Subject characteristic.

Characteristic	Low genital image n = 37	High genital image n = 76	<i>p</i>	Sexual dysfunction n = 77	Non-sexual dysfunction n = 36	<i>p</i>	Percentage (%) / mean \pm SD n = 113
Age (years \pm SD)	58.3 \pm 8.8	56.8 \pm 10.4	0.457	58.7 \pm 8.6	54.2 \pm 11.7	0.023*	57.3 \pm 9.9
BMI (kg/m ² \pm SD)	25.5 \pm 3.8	25.1 \pm 4.4	0.648	25.0 \pm 4.0	25.7 \pm 4.6	0.415	25.2 \pm 4.2
Education							
Elementary school	15	18	0.251	29	4	0.035*	33 (29.2)
Junior high school	3	10		7	6		13 (11.5)
Senior high school	13	28		25	16		41 (36.3)
Academy/university	6	20		16	10		26 (23.0)
Nutritional status							
Underweight/normal weight	11	22	0.484	25	8	0.535	33 (29.2)
Overweight	7	22		19	10		29 (25.7)
Obesities	19	32		33	18		51 (45.1)
Menopausal status							
Pre-menopause	4	18	0.105*	10	12	0.011*	22 (19.5)
Post-menopause	33	58		67	24		91 (80.5)
Parity							
Nullipara	1	2	0.152*	2	1	0.618	3 (2.7)
Primipara	5	5		6	4		10 (8.8)
Multipara	31	61		65	27		92 (81.4)
Grande multipara	0	8		4	4		8 (7.1)
Comorbidity							
None	21	57	0.052*	48	30	0.069*	78 (69.0)
One comorbid	14	13		23	4		27 (23.9)
More than one	2	6		6	2		8 (7.1)
Uterine prolapse degree							
None	1	57	0.089*	5	7	0.010*	12 (10.6)
Grades 1–2	9	13		18	14		32 (28.3)
Grades 3–4	27	6		54	15		69 (61.0)
Cystocele degree							
None	0	0	0.194*	0	0	0.002*	0 (0.0)
Grades 1–2	10	30		20	20		40 (35.4)
Grades 3–4	27	46		57	16		73 (64.6)
Rectocele degree							
None	1	4	0.269	3	2	0.595	5 (4.4)
Grades 1–2	22	54		50	26		76 (67.3)
Grades 3–4	14	18		24	8		32 (28.3)

SD: standard deviation; BMI: body mass index.

p* < 0.25.Table 2.** Comparison of median FSFI scores per domain and total by genital image status.

Domain	Low genital image n = 37	High genital image n = 76	<i>p</i>
Desire disorder, median (range)	3.0 (1.2–4.2)	3.0 (1.2–9.6)	0.007*
Arousal disorder, median (range)	2.4 (1.2–4.2)	3.3 (0.6–6.0)	0.003*
Lubrication disorder, median (range)	3.3 (1.2–6.0)	4.5 (1.2–6.0)	0.006*
Orgasm disorder, median (range)	2.8 (0.8–6.0)	4.4 (1.2–6.0)	0.001*
Satisfaction disorder, median (range)	3.6 (0.0–6.0)	4.4 (1.2–6.0)	0.002*
Pain, median (range)	3.6 (0.0–6.0)	4.6 (1.2–6.0)	0.018*
Total FSFI score, median (range)	18.3 (6.2–31.1)	22.9 (7.2–35.6)	0.001*

FSFI: Female Sexual Function Index.

*Mann–Whitney's *U* test.

Table 3. Correlation of genital self-image with sexual dysfunction.

Variable	Sexual dysfunction	Non-sexual dysfunction	<i>n</i>	<i>p</i>	OR	Range
Low genital self-image	35	2	37	0.000	14.17	3.18–63.17
High genital self-image	42	34	76			
Total	77	36	113			

OR: odds ratio.

Table 4. Multivariate logistic regression analysis on sexual dysfunction.

Characteristic	<i>p</i>	OR	95% CI	
			Low	High
Low genital image	0.001	12.54	2.76	59.69
Cystocele degree	0.007	3.49	1.40	8.72

OR: odds ratio; CI: confidence interval.

Statistically significant, $p < 0.1$.

Genital organs are the important center of sexual experience, while genital self-image is a person's feelings and thoughts about their genital organs.²¹ Genital self-image relates to women's experiences of sexual drive, arousal, vaginal lubrication, orgasm, and pain.²² Low genital self-image is associated with a decrease in FSFI score.²² Positive genital self-image is associated with higher self-confidence, better quality of sexual relations, sexual health, sexual pleasure, reduced sexual distress, and lower anxiety.²¹ It is associated with better sexual function and quality of sexual relations.²²

In women with pelvic organ prolapse, sexual function is related to the acceptance of the genital image and the degree of disturbance caused by the pelvic organ prolapse.²² Decreased confidence in the partner's sexual experience and concerns about the partner's response to sexual activity become unsatisfactory for the partner (because the partner can see and feel pelvic organ prolapse during sexual activity or due to reduced vaginal tightness or tightness), as well as partners feeling organ prolapse at the time of penetration, oral sex activity, and manual stimulation will affect sexual function, especially in the domain of sexual drive and sexual satisfaction.²³

The most important factors that decrease female sexual experience in women with pelvic organ prolapse are concern about vaginal image, shame, worry about partner satisfaction, discomfort from prolapse, reduced genital sensation, and fear of worsening the prolapsed condition. These factors will trigger and cause sexual dysfunction in women with pelvic organ prolapse.⁴

Research limitations

In this study, the population included as research subjects were women with pelvic organ prolapse who had a partner

and were sexually active in the last 4 weeks, so that, overall, sexual function in women with pelvic organ prolapse could not be assessed. Spouse-related sexual function that includes partner sexual dysfunction, partner perception, and relationship problems with partners was not assessed and analyzed in this study.

Conclusion

In conclusion, this study found correlation between genital image and sexual dysfunction in women with pelvic organ prolapse. Low genital self-image predicts sexual dysfunction in women with pelvic organ prolapse in this research. The results of this study provide additional knowledge about the factors of genital self-image and sexual dysfunction that occurs in women with pelvic organ prolapse, especially in Indonesia. Based on the results of this study, in the management of patients with pelvic organ prolapse, it is necessary to evaluate and comprehensively treat the problems of genital self-image and sexual dysfunction because sexual function is an integrated component of quality of life.

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Author contribution

Suskhan Djusad contributed to conceptualization, writing—review and editing, methodology, and format analysis. Alfa Putri Meutia contributed to conceptualization, writing—review and editing, methodology, and format analysis. Shirley Anggraini Tunggadewi contributed to investigation, writing—review and editing, and format analysis. Yulia Margaretta Sari contributed to conceptualization, investigation, writing—original draft, and format analysis. Surahman Hakim contributed to format analysis and writing—review and editing. Tyas Priyatini contributed to format analysis and writing—review and editing. Fernandi Moegni contributed to format analysis and writing—review and editing. Budi Iman Santoso contributed to format analysis and writing—review and editing.

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Supplemental material

Supplemental material for this article is available online.

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