

Female Genital Self-Image Scale: Turkish Adaptation and Examination of Its Psychometric Properties

Kadın Genital Benlik İmajı Ölçeği: Türkçe Uyarlaması ve Psikometrik Özelliklerinin İncelenmesi

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ABSTRACT

Objective: It is known that women's genital self-image affects sexual behaviors such as sexual dysfunction, sexual motivation and the sexual satisfaction. The objective of this study was to adapt the "Female Genital Self-Image Scale" into Turkish and to examine its psychometric properties.

Methods: This study, which was conducted in a methodological research design, was implemented over 200 women in two family health care centers between March and July 2018.

The researchers gathered the data using a Personal Information Form they had designed, and the Female Genital Self-Image Scale. The research data were analyzed through the Statistical Analysis System program. The analysis of data was conducted through descriptive statistics such as average, standard deviation, and percentage as well as the exploratory factor analysis.

Results: The scale's content validity index was found to range from 7.60±2.55 to 9.90±0.32. In the exploratory factor analysis, which was used for evaluating the construct validity, the seven-item structure of the scale was confirmed. The total Cronbach's α coefficient of the one-dimensional scale was determined as 0.90.

Conclusion: The Turkish adaptation of the Female Genital Self-Image Scale was assessed and determined to be a valid and reliable tool for measuring women's genital self-image.

Keywords: Female genital self-image, nursing, psychometric properties, women.

ÖZ

Amaç: Kadınların genital benlik imajının cinsel işlev bozukluğu, cinsel motivasyon ve cinsel tatmin gibi cinsel sağlık davranışlarını etkilediği bilinmektedir. Bu çalışmanın amacı "Kadın Genital Benlik İmajı Ölçeği"ni Türkçeye uyarlamak ve psikometrik özelliklerini incelemektir.

Yöntem: Metodolojik araştırma tasarımı yürütülen bu çalışma, Mart-Temmuz 2018 tarihleri arasında iki aile sağlığı merkezinde, 200 kadın ile gerçekleştirilmiştir. Veriler araştırmacılar tarafından geliştirilen Kişisel Bilgi Formu ve Kadın Genital Benlik İmajı Ölçeği aracılığıyla toplandı. Verilerin analizi, ortalama, standart sapma, yüzde gibi betimsel istatistiklerin yanı sıra açıklayıcı faktör analizi ile yapılmıştır.

Bulgular: Yapılan analizler sonucunda ölçeğin kapsam geçerlik indeksinin 7.60±2.55 ile 9.90±0.32 arasında değiştiği belirlenmiştir. Yapı geçerliğini değerlendirmek amacıyla kullanılan açıklayıcı faktör analizinde ölçeğin yedi maddeli yapısı doğrulanmıştır. Tek boyutlu olan ölçeğin toplam Cronbach alfa değerinin 0.90 olduğu bulunmuştur. Bununla birlikte, ölçeğin madde-toplam puan korelasyonlarının 0.58 ile 0.81 arasında değiştiği belirlenmiştir.

Sonuç: Kadın Genital Benlik İmajı Ölçeği'nin Türkçe versiyonu değerlendirilmiş ve kadınların genital benlik imajlarını değerlendirmede geçerli ve güvenilir bir araç olduğu bulunmuştur.

Anahtar Sözcükler: Kadın genital benlik imajı, kadınlar, hemşirelik, psikometrik özellikler

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Introduction

Genital self-image represents the satisfaction levels of individuals concerning the external appearance of their genital organs, the health status of their genitals, and their genital self-perceptions. Waltner (1986) defined genital identity as the “self-attitude and subsequent emotion resulting from specific interactions and experiences involving genital organs directly or indirectly” (Waltner, 1986). The genital self-image is an abstract and individual concept. In addition, the genital self-image is of great importance on both appearance and sexual functions (DeMaria et al., 2012; Zielinski et al., 2012). Additionally, genital self-image is an integral part of the psychological and behavioral dimensions of how individuals perceive their genital self and the physical well-being they associate with their genitals (Schick et al., 2010).

In recent studies, it has been demonstrated that the genital self-image of the women and their sexual well-being are correlated (Ålgars et al., 2011; DeMaria et al., 2012). In other words, negative genital-self perceptions of women are related with risky sexual behaviors, feeling uncomfortable about the genital organs, and less sexual motivation. Women who are satisfied with their genital self-image are reported to experience greater sexual activity, more frequent orgasms, and increased confidence in their sexual lives (Marvi et al., 2018; Træen et al., 2016). Additionally, it is known that positive genital self-image is strongly related with the sexual functionality and satisfaction (Pujols et al., 2010). It was reported that women with lower levels of genital self-image perception have less sexual pleasure, respect, and sexual intercourse, besides having higher levels of sexual dysfunctionality (Ålgars et al., 2011; DeMaria et al., 2012; Herbenick and Reece, 2010; Herbenick et al., 2011; Schick et al., 2010). Genital self-images of the women not only influence their sexual functionality levels, but also accepted as the determinants of their other behaviors including particularly genital examination behaviors (Marvi et al., 2018; Træen et al., 2016). Additionally, it was determined that women with negative genital self-image abstain from gynecological examination. This is an important factor particularly retarding the early diagnosis of cervical cancer (Fahs, 2014; Laan et al., 2017). Moreover, having low levels of genital self-image causes women to experience genital cosmetic surgery without indication (DeMaria et al., 2012; Goodman et al., 2016; Herbenick and Reece, 2010; Herbenick et al., 2011; Schick et al., 2010). It was

reported that the rate of labioplasty has been increasing since the women, as a “normal” genital self-image, prefer a smooth vulvar surface instead of a protruding labia minor (Liao and Creighton, 2007).

In order to evaluate the genital self-image of the women, the “Female Genital Self-Image Scale (FGSIS)” was developed by Herbenick and Reece (2010) as a simple and short measurement tool (Herbenick and Reece, 2010). This scale evaluates in detail the emotions and thoughts of women concerning their genital organs as well as genital appearance and smell in personal and interpersonal environments (Herbenick and Reece, 2010). The psychometric properties of the Turkish version of the scale were initially examined in a study involving doctors, medical students, nurses, secretaries, staff members, and their relatives and friends (Kaya et al., 2019). Given their professional backgrounds, individuals employed in healthcare settings are presumed to possess a more comprehensive understanding of sexual anatomy and function. Consequently, since the original sample predominantly comprised women engaged in healthcare services, it was deemed necessary to conduct the study with a more representative sample of Turkish women seeking care at family health centers, who are not affiliated with the healthcare profession. The aim of this study was conducted to test the validity and reliability of Turkish version of the FGSIS. The research questions of this study are as follows:

- Is the Turkish adaptation of the Female Genital Self-Image Scale a valid instrument in measuring women's genital self-image?
- Is the Turkish adaptation of the Female Genital Self-Image Scale a reliable instrument in measuring women's genital self-image?

Methods

Study Design

This study utilized a methodological research design, and its planning and reporting processes were guided by the COSMIN (Consensus-Based Standards for the Selection of Health Measurement Instruments) methodology (Mokkink et al., 2018; Prinsen et al., 2018; Terwee et al., 2018).

Sample

This research was conducted in two family health care centers functioning under the Antalya Provincial Directorate of Health between March and July 2018. The sample size of the study was calculated 20 times as many as each variable to be

measured (Güngör, 2016; Polit and Beck, 2013) There are 7 items in the Female Genital Self-Image Scale. In this respect, the number of the women to reach as the sample was decided as 140. Considering the possibility of extreme and missing values, the study was conducted with totally 200 women.

The inclusion criteria of the study concerning the participant women were as follows; volunteering to participate, being between 18 and 40 years old, being married, having an active sexual life, and being able to establish cognitive, affective, and verbal communication. The exclusion criteria of the study for the participant women were as follows; being a doctor, medical student, nurse, or a staff member related to healthcare services, having a reconstructive operation on the genital organ, having a serious systemic or psychiatric disorder, and being in antenatal or postnatal period.

Data Collection Method

The data were gathered through face-to-face interviews with the participants. The researchers provided participants with detailed information about the study. Data collection was carried out using a personal information form designed by the researchers and the Female Genital Self-Image Scale.

Personal Information Form

Personal Information Form is comprised of totally six questions investigating certain data about the participant women such as age, educational status, occupational status, family type, previous gynecological examination experience and reason of the gynecological examination within the last 12 months.

Female Genital Self-Image Scale

Female Genital Self-Image Scale (FGSIS) was developed by Herbenick and Reece (2010) in the United States of America. The "Female Genital Self-Image Scale" (FGSIS) is comprised of 7 items. The answers of the likert-type scale were scored from 1 to 4. In the scale, 1 represents "Strongly Disagree", 2 "Disagree", 3 "Agree", and 4 "Strongly Agree". The lowest possible score to gain from the scale was 7 while the highest score was 28. In the original validity and reliability analysis of the scale, the Cronbach Alpha coefficient was determined as 0.88. The original language of the scale is English (Herbenick and Reece, 2010). Having a high total FGSIS score means having a positive genital self-image. Also, Kaya et al., (2019) was first conducted the Turkish adaptation study of this scale (Kaya et al., 2019). The study sample comprised doctors, medical students, nurses, secretaries, staff members,

as well as their relatives and friends. The Cronbach's alpha coefficient for the scale was calculated to be 0.818. However, in this study, it was examined whether the scale is a valid and reliable measurement tool in evaluating the genital self-image of women who are not healthcare professionals. In this context, the steps of the COSMIN guideline were reapplied due to the change in sample characteristics.

Following the COSMIN guidelines, the cultural adaptation of the scale was carried out in three phases: (1) linguistic validation, (2) content validation, and (3) a pilot study. In the language validity stage of the scale, in order to eliminate any possible psycholinguistic problems, the translation (to Turkish) of the scale was examined by three experts independent of each other, and the re-translated version (to English) was examined by two experts independent of each other. In the language validity, it is suggested to look for conceptual and cultural equivalence instead of linguistic equivalence (Polit and Beck, 2013). Therefore, this principle was applied in the translation. In content validity; the opinions of ten physician and nurse academicians were received for the comprehensibility, expediency, and cultural concordance of the FGSIS. The experts scored each item in the scale ranging from 1 to 10. The researchers made the necessary adjustments to the items, finalizing the scale in its completed form. During the pilot study, based on expert recommendations, the Female Genital Self-Image Scale (FGSIS) was tested with a group of 20 women. The results obtained in the pilot scheme were not included into the sample. As the conclusion of the pilot scheme, it was determined that there were no misunderstood questions in the scale. Thus, Turkish version of the FGSIS form was put into its final form.

Data Analysis

The data analysis were conducted using the SAS (Statistical Analysis System) program (9.4 version). The analysis of the quantitative research data was conducted through descriptive statistics such as average, standard deviation, and percentage. Whether the data demonstrated a normal distribution was analyzed through Shapiro-Wilk test. Furthermore, the adequacy of the sample size for the exploratory factor analysis (EFA) was confirmed using the Kaiser-Meyer-Olkin (KMO) measure and the Bartlett's Sphericity test. The KMO index have values ranging between 0 and 1, and having a value close to 1 indicates that the variables involved in the

analysis can perfectly predict each other without errors. This study confirmed that the sample size was adequate for conducting factor analysis (KMO value: 0.864). The results of the Barlett Sphericity Test, which was conducted to determine whether the data demonstrated a normal distribution, were also significant ($\chi^2=937.852$; SS 21; $p<0.000$). These findings demonstrate that the hypotheses required for the EFA were met, and there was a perfect fit among the data for the factor analysis.

In the structural validity analysis of the scale, content validity index and exploratory factor analysis were conducted. In the calculation of the content validity index, Kendall Coefficient of Concordance (Kendall W) and total item correlation scores were analyzed.

In the internal consistency analyses, the total Cronbach Alpha coefficient of the scale and item-total correlation score were analyzed. Cronbach's alpha coefficient was calculated to assess the scale's internal consistency, with values greater than 0.7 deemed acceptable (Mokkink et al., 2018; Prinsen et al., 2018; Terwee et al., 2018). The significance level for the whole study was determined as 0.05.

Ethical considerations

During the adaptation of the scale into Turkish culture, initially Herbenick and Reece was contacted through emails and necessary permissions were gained in terms of using the scale. In order to conduct the study, necessary written permissions were taken from the institutions, where the study would be conducted, and the ethical permission was gained from the Clinical Research Ethics Committee of Akdeniz University (Approval No: 434, Dated: 19.07.2017). Additionally, necessary information was given to the participants about the research, stressing that the individual information will be kept safe and secure, and thus, the volunteering women were included into the research.

Results

Among the 200 women, who were included into the sample, 49.5% were between 33-40 years old, 29% had graduate-level or over educational status, and 85% were living in nuclear families. Of the participants, 38.5 % had gynecological examination; among these, 61.5% did not have regular gynecological examination, and it was determined that 51.9% had undergone gynecological examination because of vaginal examination (Table 1).

Table 1. Characteristics of the participants

Variables	n	%
Age (n=200)		
19-25	30	15.0
26-32	71	35.5
33-40	99	49.5
Educational Status (n=200)		
Elementary	50	25.0
High School	58	29.0
Associate Degree	34	17.0
Graduate and over	58	29.0
Family Type (n=200)		
Nuclear Family	170	85.0
Extended Family	30	15.0
Occupational Status (n=200)		
Yes	100	50.0
No	100	50.0
Previous Gynecological Examination Experience (n=200)		
Yes	77	38.5
No	123	61.5
Reason of the Gynecological Examination (n=77)		
Routine Control	20	26.0
Pap Smear	17	22.1
Vaginal Examination	40	51.9

The Validity Analysis of the Scale

For the structural validity analysis of the scale, the Kendall W (Kendall Coefficient of Concordance) test was used in the evaluation of the content validity index. The results indicated a moderate and statistically significant agreement among the experts (Kendall W=0.264; $2=15.864$; $p=0.015$).

For the construct validity of the scale, since there is not sub-dimension of the Female Genital Self-Image Scale, the EFA was used. Data were analyzed through the principal components analysis and vertical rotation method. Among the vertical rotation methods are the Varimax and Quartimax techniques. In this research, the Varimax vertical rotation method was used since the scale was a multi-factored structure. The analysis of the data collected from women's responses to the FGSIS questions revealed that the factor loadings of the scale items ranged from 0.667 to 0.880. It was

determined that the item "I feel comfortable letting a health care provider examine my genitals" had the lowest factor loading (0.667), "I feel positively about my genitals" had the highest factor loading (0.880) among the FGSIS scale items. Additionally, it was determined that the items accounted for 64.05% of the total variance (Table 2).

Table 2. Converted factor loads of the FGSIS items

Items	Factor Load
1. I feel positively about my genitals	0.880
2. I am satisfied with the appearance of my genitals	0.866
3. I would feel comfortable letting a sexual partner look at my genitals	0.756
4. I think my genitals smell fine	0.827
5. I think my genitals work the way they are supposed to work	0.830
6. I feel comfortable letting a health care provider examine my genitals	0.667
7. I am not embarrassed about my genitals	0.755
% Explained variance	64.05

The transformed factors and their corresponding factor loadings, derived from the factor analysis, are presented in the path diagram shown in Figure 1. It is observed that the factor loads of seven items in the scale varied between "0.67" and "0.88".

The Internal Consistency Analyses

In order to determine the internal consistency of the Female Genital Self-Image Scale, the descriptive statistics, Cronbach Alpha coefficients, and total item correlations were calculated. It was determined that the FGSIS item average score was ranging between 2.52 (0.83) and 3.32 (0.59). Also, since the FGSIS was a likert-type scale, the Cronbach Alpha internal consistency coefficient was checked. The Cronbach's Alpha coefficient of the scale was found to be 0.90, indicating a high degree of reliability. Additionally, the Cronbach Alpha coefficients of the scale items ranged between 0.880 and 0.906, demonstrating a high level of reliability (Table 3). To analyze the relationship between the individual item scores and the total scale score, the total item correlation coefficient was evaluated. As a result of the analysis, the total item correlation coefficients of the scale were determined to be between 0.578 and 0.811 (Table 3).

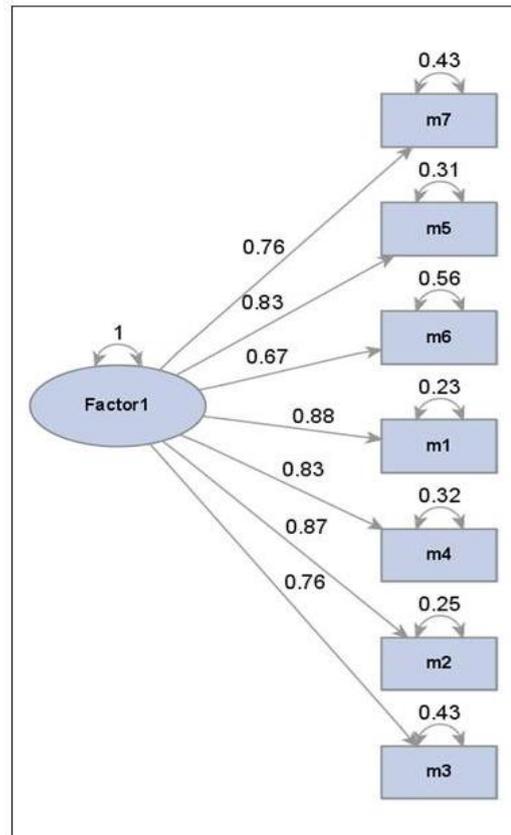


Figure 1. Path graph obtained as a result of the factor analysis

Discussion

In this study, the original version of the Female Genital Self-Image Scale (FGSIS), which was developed by Herbenick and Reece (2010) to measure the genital self-image that influences health-seeking behaviors of women, was translated into Turkish and its psychometric properties were examined (Herbenick and Reece, 2010). The FGSIS has been adapted into various languages, including Arabic (Mohammed and Hassan, 2014), Persian (Pakpour et al., 2014), Brazilian-Portuguese (Arruda et al., 2023), Spanish (Bartolomé et al., 2022), Thai (Jansuwan et al., 2022; Komon et al., 2022), Swedish (Loewinski et al., 2022) and Turkish (Kaya et al., 2019). Over the years, adaptation studies of this scale have been conducted repeatedly to ensure its suitability for specific populations. The original version of the FGSIS was developed in English, with data collected via the internet, and with no restrictions other than participants being female (Herbenick and Reece, 2010). Additionally, It was later re-evaluated the scale’s applicability to female college students, who are younger women, assessing its psychometric properties in this specific population (DeMaria et al., 2012).

Table 3. Results concerning the internal consistency analyses of the FGSIS

Items	Ort (SD)	Total Item Correlation	Cronbach's α coefficient
1.I feel positively about my genitals	3.22 (0.58)	0.811	0.880
2.I am satisfied with the appearance of my genitals	3.23 (0.60)	0.791	0.882
3.I would feel comfortable letting a sexual partner look at my genitals	3.05 (0.60)	0.667	0.896
4.I think my genitals smell fine	2.99 (0.70)	0.754	0.886
5.I think my genitals work the way they are supposed to work	3.32 (0.59)	0.746	0.887
6.I feel comfortable letting a health care provider examine my genitals	2.52 (0.83)	0.578	0.906
7.I am not embarrassed about my genitals	2.78 (0.80)	0.675	0.895
Total Cronbach's α coefficient			0.904

Similarly, the Thai version of the FGSIS scale has been examined in two separate studies (Jansuwan et al., 2022; Komon et al., 2022), where the primary difference lay in the clinical settings from which the data were collected. Specifically, one study obtained data from women attending a gynecologic outpatient clinic (Jansuwan et al., 2022), while the other study collected data from sexually active women undergoing a health check-up (Komon et al., 2022). The most critical factor influencing the validity and reliability of the scale is the characteristics of the sample population. In Türkiye, the psychometric properties of the Turkish version of the FGSIS scale were first examined using a sample that included doctors, medical students, nurses, secretaries, staff members, and their relatives and friends (Kaya et al., 2019). Given their professional backgrounds, individuals working in healthcare are expected to have greater knowledge of sexual anatomy and function. The study found that the Turkish version of the scale was valid and reliable for use among healthcare professionals. However, further validation is needed to determine whether this version is also suitable for use with other groups of women. Thus, this research was conducted with women who applied to family health centers to receive healthcare.

Genital self-image is an abstract and individual concept. Concrete parameters can be measured and evaluated through a measurement tool since the parameter to be measured is constant; however, the evaluation of abstract parameters is not decisive due to individual differences. Therefore, it is of vital importance for the measurement tools that are used in the evaluation of abstract parameters to

comprehensively address the relevant parameter and the needs of the population (Mokkink et al., 2018; Prinsen et al., 2018; Terwee et al., 2018). Therefore, in assessing the concordance of the measurement tools, which evaluate an abstract concept, to other cultures, the sample size is required to be sufficient. The methodologists of the field suggest that, in scale adaptation studies, the sample sizes should be 5-10 times as many as the number of the items (Güngör, 2016; Mokkink et al., 2018; Polit and Beck, 2013; Prinsen et al., 2018; Terwee et al., 2018). In this respect, the study was conducted with more than 20 times ($n=200$) the number of the items of the scale (seven items). Additionally, in order to test the sample sufficiency, KMO (KMO value: 0.864) and Bartlett ($\chi^2=937.852$; SS 21; $p<0.000$) tests were employed. These findings demonstrate that the sample size was reached that was necessary for the EFA.

Another important factor in the scale adaptation studies is ensuring the linguistic equivalence of the scale. Linguistic equivalence is of significant importance in terms of achieving a successful process in the adaptation of the scale into Turkish. Therefore, the English and Turkish versions of the FGSIS were examined and supported through the views of ten experts, who were expert linguists at advanced level in both languages. It was determined that the correlation between the scores obtained from the experts on the English and Turkish versions of the FGSIS was consistent, and they were in a statistically significant harmony with each other (Kendall $W=0.264$, $\chi^2=15.864$, $p=0.015$). The Kendall W value was within the range of 0.10 and 0.30, which was considered to be a moderate level

(Mokkink et al., 2018; Prinsen et al., 2018; Terwee et al., 2018). According to this result, it can be mentioned that there was a moderate and statistically significant correlation among the experts.

The Cronbach's Alpha internal consistency coefficient of the FGSIS was calculated as 0.90, with the item-specific Cronbach's Alpha coefficients ranging from 0.87 to 0.90. As the conclusion of the Cronbach's Alpha coefficient analysis, it is accepted that the scale is not reliable if the value is below 0.40, it has a low reliability if the value is between 0.40-0.59, it is quite reliable between 0.60-0.79, and highly reliable between 0.80-1.00 (Mokkink et al., 2018; Prinsen et al., 2018; Terwee et al., 2018). In the study examining the Turkish psychometric properties of the scale with doctors, medical students, nurses, secretaries, staff members, and their relatives and friends, Cronbach's Alpha coefficient was found to be 0.818 (Kaya et al., 2019). Similarly, in studies examining the Thai version of the scale in two different samples; the Cronbach's Alpha coefficient was determined as 0.800 in women attending a gynecologic outpatient clinics (Jansuwan et al., 2022); and the Cronbach's Alpha coefficient was determined as 0.847 in sexually active women undergoing a health check-ups (Komon et al., 2022). The original language of the scale, which was developed by Herbenick and Reece, was English, and its Cronbach Alpha coefficient was determined as 0.88 (Herbenick and Reece, 2010). Additionally, it is known that the reliability and validity tests of the FGSIS scale were conducted in various languages. These studies found that the Cronbach's Alpha coefficient of the Persian version of the FGSIS scale was 0.830 (Pakpour et al., 2014), 0.822 in Brazilian version (Arruda et al., 2023), 0.850 in Spanish version (Bartolomé et al., 2022), 0.820 in Swedish version (Loewinski et al., 2022) and varied between 0.895-0.930 in Arabic version (Mohammed and Hassan, 2014). In the selection of the items, the acceptable coefficient was suggested to be over 0.30 (Polit and Beck, 2013). Through the internal consistency analysis, it was determined that the total item correlation coefficients of any item were not below 0.30, and varied between 0.578 and 0.811. The results of our study are in parallel with other studies concerning the factor structure. For instance, it was determined that the Turkish version was determined to be highly reliable and can be used confidently in other studies.

Conclusion and Recommendations

When the factor to be measured and evaluated is the genital self-image, the selection of the scale to be used becomes of great significance. In this study, it was determined that the Turkish form of the FGSIS, which was developed to determine the self-image levels of women, was a valid and reliable measurement tool.

Healthcare professionals, especially nurses and psychologists, can use the Turkish FGSIS to assess women's genital self-image and develop interventions to improve body positivity and sexual well-being. The scale may be integrated into sexual health counseling programs to identify and address issues related to genital dissatisfaction, sexual motivation, and satisfaction. Further studies should validate the scale in different cultural contexts within Türkiye to assess its cross-population applicability. Longitudinal studies could examine the relationship between genital self-image and sexual health outcomes over time. Additional research should explore factors affecting genital self-image, such as sociocultural influences, media exposure, and body image perception.

Limitations

This study has several limitations. First, test-retest reliability could not be assessed as the women who provided the data could not be contacted again. Additionally, the study was not supported by a parallel measurement tool for evaluating caring behaviors. Lastly, the study was limited to two family health centers, restricting the ability to generalize the findings to all women in Türkiye.

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Ethics Committee Approval: In order to conduct the study, necessary written permissions were taken from the institutions, where the study would be conducted, and the ethical permission was gained from the Clinical Research Ethics Committee of Akdeniz University (Approval No: 434, Dated: 19.07.2017).

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Conflict of interest: The authors declare that they have no conflict of interest.

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What did the study add to the literature?

- This study provides a valid and reliable measurement tool that nurses and healthcare professionals can use to assess genital self-image, an important factor influencing sexual motivation, sexual satisfaction, and overall quality of life in women.
- The availability of a validated scale may encourage further quantitative and qualitative research on genital self-image and its impact on sexual health.
- Further studies may enhance the integration of genital self-image discussions into nursing practice, research, and education, fostering more comprehensive and culturally sensitive healthcare practices.

References

- Ålgars M, Santtila P, Jern P, Johansson A, Westerland M, Sandnabba NK. (2011). Sexual body image and its correlates: A population-based study of Finnish women and men. *International Journal of Sexual Health*, 23, 26-34. <https://doi.org/10.1080/19317611.2010.509692>
- Arruda GT, Silva EV, Somavilla P, Oliveira MCR, Braz MM. (2023). Female genital self-image scale (FGSIS): Cut-off point, reliability, and validation of measurement properties in Brazilian women. *Fisioterapia e Pesquisa*, 30, e22015823en. <https://doi.org/10.1590/1809-2950/e22015823en>
- Bartolomé A, Villalaín C, Bermejo R, Bolívar AB, Castillo LP, Galindo A, et al. (2022). Spanish translation, transcultural adaptation, validation and clinical applicability of female genital-self image scale (FGSIS). *Sexual Medicine*, 10, 100558-100558. <https://doi.org/10.1016/j.esxm.2022.100558>
- DeMaria AL, Hollub AV, Herbenick D. (2012). The female genital self-image scale (FGSIS): Validation among a sample of female college students. *Journal of Sexual Medicine*, 9, 708-718. <https://doi.org/10.1111/j.1743-6109.2011.02620.x>
- Fahs B. (2014). Genital panics: Constructing the vagina in women's qualitative narratives about pubic hair, menstrual sex, and vaginal self-image. *Body Image*, 11, 210-218. <https://doi.org/10.1016/j.bodyim.2014.03.002>
- Goodman MP, Placik OJ, Matlock DL, Simopoulos AF, Dalton TA, Veale D, et al. (2016). Evaluation of body image and sexual satisfaction in women undergoing female genital plastic/cosmetic surgery. *Aesthetic Surgery Journal*, 36, 1048-1057. <https://doi.org/10.1093/asj/sjw061>
- Güngör D. (2016). Psikolojide ölçme araçlarının geliştirilmesi ve uyarlanması kılavuzu. *Türk Psikoloji Yazıları*, 19, 104-112.
- Herbenick D, Reece M. (2010). Outcomes assessment: Development and validation of the female genital self-image scale. *Journal of Sexual Medicine*, 7, 1822-1830. doi: <https://doi.org/10.1111/j.1743-6109.2010.01728.x>
- Herbenick D, Reece M, Hensel D, Sanders S, Jozkowski K, Fortenberry JD. (2011). Association of lubricant use with women's sexual pleasure, sexual satisfaction, and genital symptoms: A prospective daily diary study. *The Journal of Sexual Medicine*, 8, 202-212. <https://doi.org/10.1111/j.1743-6109.2010.02067.x>
- Jansuwan A, Bunyavejchevin S, Ruanphoo P. (2022). Reliability and validity of Thai-version of female genital self-image scale (FGSIS) questionnaire. *Thai Journal of Obstetrics and Gynaecology*, 30, 272-278. <https://doi.org/10.14456/tjog.2022.25>
- Kaya AE, Yassa M, Dogan O, Basbug A, Pulatoglu C, Caliskan E. (2019). The female genital self-image scale (FGSIS): Cross-cultural adaptation and validation of psychometric properties within a Turkish population. *International Urogynecology Journal*, 30, 89-99. <https://doi.org/10.1007/s00192-018-3688-1>
- Komon W, Kijmanawat A, Chattrakulchai K, Sarit-Apirak S, Silpakit C, Manonai J. (2022). Validation of the Thai version of the female genital self-image scale (FGSIS). *BMC Women's Health*, 22, 254-262. <https://doi.org/10.1186/s12905-022-01841-8>
- Laan E, Martoredjo DK, Hesselink S, Snijders N, van Lunsen RH. (2017). Young women's genital self-image and effects of exposure to pictures of natural vulvas. *Journal of Psychosomatic Obstetrics & Gynecology*, 38, 249-255. <https://doi.org/10.1080/0167482X.2016.1233172>
- Liao LM, Creighton SM. (2007). Requests for cosmetic genitoplasty: How should healthcare providers respond? *British Medical Journal*, 334, 1090-1092. <https://doi.org/10.1136/bmj.39206.422269.BE>
- Loewinski T, Östling F, Alehagen S, Grundström H. (2022). Translation, cross-cultural adaptation, and validation of the Swedish version of the female genital self-image scale. *Sexual & Reproductive Healthcare*, 33, 100758. <https://doi.org/10.1016/j.srhc.2022.100758>
- Marvi N, Golmakani N, Esmaily H, Shareh H. (2018). The relationship between sexual satisfaction and genital self-image in infertile women. *Journal of Midwifery and Reproductive Health*, 6, 1468-1475. <https://doi.org/10.22038/JMRH.2018.21564.1233>
- Mohammed G, Hassan H. (2014). Validity and reliability of the Arabic version of the female genital self-image scale. *The Journal of Sexual Medicine*, 11, 1193-1200. <https://doi.org/10.1111/jsm.12494>

- Mokkink LB, De Vet HC, Prinsen CA, Patrick DL, Alonso J, Bouter LM, et al. (2018). Cosmin risk of bias checklist for systematic reviews of patient-reported outcome measures. *Quality of Life Research*, 27, 1171-1179. <https://doi.org/10.1007/s11136-017-1765-4>
- Pakpour AH, Zeidi IM, Ziaeiha M, Burri A. (2014). Cross-cultural adaptation of the female genital self-image scale (FGSIS) in Iranian female college students. *The Journal of Sex Research*, 51, 646-653. <https://doi.org/10.1080/00224499.2013.821441>
- Polit DF, Beck CT. (2013). Is there still gender bias in nursing research? An update. *Research in Nursing & Health*, 36, 75-83. <https://doi.org/10.1002/nur.21514>
- Prinsen CA, Mokkink LB, Bouter LM, Alonso J, Patrick DL, De Vet HC, et al. (2018). Cosmin guideline for systematic reviews of patient-reported outcome measures. *Quality of Life Research*, 27, 1147-1157. <https://doi.org/10.1007/s11136-018-1798-3>
- Pujols Y, Meston CM, Seal BN. (2010). The association between sexual satisfaction and body image in women. *The Journal of Sexual Medicine*, 7, 905-916. <https://doi.org/10.1111/j.1743-6109.2009.01604.x>
- Schick VR, Calabrese SK, Rima BN, Zucker AN. (2010). Genital appearance dissatisfaction: Implications for women's genital image self-consciousness, sexual esteem, sexual satisfaction, and sexual risk. *Psychology of Women Quarterly*, 34, 394-404. <https://doi.org/10.1111/j.1471-6402.2010.01584.x>
- Terwee CB, Prinsen CA, Chiarotto A, Westerman MJ, Patrick DL, Alonso J, et al. (2018). Cosmin methodology for evaluating the content validity of patient-reported outcome measures: A delphi study. *Quality of Life Research*, 27, 1159-1170. <https://doi.org/10.1007/s11136-018-1829-0>
- Træen B, Markovic A, Kvaalem IL. (2016). Sexual satisfaction and body image: A cross-sectional study among Norwegian young adults. *Sexual and Relationship Therapy*, 31, 123-137. <https://doi.org/10.1080/14681994.2015.1131815>
- Waltner R. (1986). Genital identity: A core component of sexual-and self-identity. *The Journal of Research*, 22, 399-402. <https://doi.org/10.1080/00224498609551319>
- Zielinski R, Miller J, Low LK, Sampsel C, DeLancey JO. (2012). The relationship between pelvic organ prolapse, genital body image, and sexual health. *Neurourology and Urodynamics*, 31, 1145-1148. <https://doi.org/10.1002/nau.22205>