Development and Validation of Female Psychosexual Problems Scale (FPPS)

Haleema Adnan1*, Samina Rashid2, Noman Aftab2

Abstract

The goal of the current study was to address married women's psychosexual difficulties in the context of Pakistani culture. Semi structured interviews were conducted on 35 married females as part of the study's initial phase in order to explore phenomenology, and 34 items were created as a result. Furthermore, 34 items were initially provided to experts for the evaluation of content validity. Repetitive statements were discarded after evaluation, and a scale of 32 items was kept and approved by professionals related to psychology field. 160 married female participants were given the final 32 item scale for data collection. Factor analysis revealed a strong KMO value, and Bartlett's test of sphericity revealed a substantial connection between the items. Kaiser's criteria were used to conduct a one factor analysis and only factors with Eigen values of .4 or higher were kept, while factors with Eigen values lower than .4 were removed from the sample. Three key themes found were problems with relationships, personal suffering, and religious concerns by component analysis. Data from sample of 50 married females underwent Confirmatory Factor Analysis (CFA) to verify the variables identified through Exploratory Factor Analysis (EFA), which overall demonstrated a strong construct validity of the scale and model fit. The constructed scale's Cronbach alpha value of .97 indicates a significant inter-item correlation. The research demonstrates information on a wide range of interventions.

Keywords: Married Females, Psychosexual Problems, Sexual Health, Sexuality Scale

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*Corresponding Author Email: haleema.adnan@uow.edu.pk

Introduction

Women now confront challenges such as female genital mutilation, honor crimes, sexual assault, domestic violence, the pay gap between men and women, body image issues, eating disorders, and issues with sexual and reproductive rights. While women's challenges are portrayed differently in developing countries, women in Pakistan, Bangladesh, and Saudi Arabia are confronted and challenged by customs such as honor killings, female genital mutilation, acid attacks, child marriage, and disparities in gender (Rahman, 2018). The number of educated women in many countries has reached critical mass, and they are making their existence known.

Women continue to face additional obstacles because they are still considered property worldwide, especially in low- and middle-income countries. Women in Pakistani society are still legally and socially subservient to men, with no way to achieve financial or social independence, or even equal independence, because they must ask their male "guardian" for approval before doing anything, such as enrolling in school, travelling, or acquiring a job. According to an international women's movement, women and men should have comparable access to sustenance, well-being, education, jobs, and
the ability to govern their bodies and pick a mate (Berik, 2022).

Human development is a lifelong process, with human development being defined as a complex pattern of change. Sexual growth and sexual relationships with partners are significant aspects of individual development. Sexuality is a complicated mix of psychological, emotional, and physiological impulses that is a fundamental element of being human. Healthy relationships and mental health are aided by love, warmth, and sexual understanding (Papalia et al., 2008).

Sexual intimacy is a psycho biological reaction consisted on the expansion of love and emotional ties among the two individuals; sexual closeness is more than just a mechanical process of penovaginal contact. The biological, psychological, and emotional frameworks of both individuals, as well as communal variables, all influence the sexual process. Environmental factors influence the quality of sexual act in love relationships; emotional closeness, imaginary representation of personality and spouse, and sexual preferences all play a role in determining the quality of the sexual act (Penke & Asendorpf, 2008).

In recent years, the World Association of Sexual Health (WAS) have accepted sexual contentment as the keystone of sexual wellbeing. Sexual pleasure is described as "the bodily and/or emotional happiness and gratification gained from shared or solitary erotic encounters, including thoughts, fantasies, dreams, emotions, and feelings" (Gruskin & Kismodi, 2020) The literature claims that religion fosters marital satisfaction and closeness in married couples and promotes the value of marriage, which fosters marital commitment in partners. Therefore, religion promotes a contented and joyful marriage. Divorce has a detrimental effect, claim Austin et al. (2018). Religious couples have strong feelings against divorce and are prepared to make sacrifices for their union. The study's findings showed that religiosity and its subsets religious commitment and religious practice along with influencing variables were linked to married Pakistani couples' marital satisfaction (Abbas et al., 2023).

Having a healthy sexual life is also crucial since it allows a person to have a variety of features because having a good sexual health is a combination of various factors. It's the incorporation of the corporeal, emotional, and sociological elements of sexuality in ways that are both inspiring and beneficial to nature, interpersonal interaction, and affection (World Health Organization, 2006). Females have a higher rate of sexual issues than men. Due to cultural and social constraints, this is frequently under-reported. Pakistan has a dearth of epidemiologic studies on this issue. Professionals in the healthcare field are also unprepared to cope with such issues (Ahmed et al., 2022). Healthcare professionals are similarly unable to deal with such obstacles. Sexual problems have been demonstrated in studies to have a substantial impact on an individual's social connections and well-being. Sexual dysfunction is a major health problem which impacts more women than men. (Nazareth et al., 2003).

To further understand the emotional and behavioral elements relating to women's sexual satisfaction, another study was carried out. The study's findings showed that while sexual conformity and a gender power gap appear to hinder women's sexual pleasure, age, sexual experience, arousability, body-esteem, sexual autonomy, and sexual assertiveness appear to benefit it (Reis et al., 2021). Female sexual problems are a serious health issue that affects both marital life and an individual's quality of life. Female sexual issues are a very common and frequently misunderstood issue in the general public. According to recent studies, the prevalence of Female Sexual Dysfunctions (FSD) in women now
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outnumbers that of men. According to an international survey, 20-25% of Asian women suffer sexual issues (Jaafarpour et al., 2013). The same study found that for economic and socio-cultural reasons, many are hesitant to seek help. Sexual issues have been proven in previous studies to have a harmful impact on interpersonal relationships and life quality (Monga et al., 2004).

Furthermore, previous study has indicated that maintaining psychological happiness and a high quality of life requires sexual connection (Rosen, 2000). Infertility and reproductive diseases are also perceived as a vicious cycle encompassing sexual problems. Various rating systems have been developed over the years to measure various elements of sexual dysfunction and other sexual illnesses. Women's sexual function is measured using a variety of tools (Palomba et al., 2018). In another study it was revealed that couples suffering from provoked vestibulodynia (PVD), a genito-pelvic pain disease, experience failures in their sexual connection, which may be linked to increased discomfort and a lower quality of life (Rancourt et al., 2016).

A different study was carried out with the intention of examining married women's sexual pleasure and the factors that contribute to it. The results showed that just 39% of participants claimed the highest levels of sexual satisfaction, while 50.4% of participants reported moderate levels. The following factors were found to be significantly associated with sexual satisfaction: poor partner communication, low sexual self-esteem, lack of social responsibility, poor sexual function, lack of prior knowledge about sexuality. According to the study's findings, a number of factors may influence married women's sexual satisfaction. As a result, it is important to design instructional programmes and provide premarital counselling and ongoing education (Zegeye et al., 2020).

Psychological morbidity, marital and sexual unhappiness were all connected with PTSD, the frequency of PTSD symptoms, and symptom clusters. Marital dissatisfaction was influenced by ageing, depressive symptoms, and sexual dissatisfaction and the model explained 55% of the variance. Relationships between sexual and depressive symptoms, as well as between the severity of PTSD symptoms and sexual dissatisfaction, were mediated by marital unhappiness (Pereira et al., 2020). Findings of another study also revealed that sexual issues play a significant role in determining whether or not spouses are satisfied in their marriages. To help the couple deal well in their marriage, this needs to be handled and addressed with the play a sensitivity and understanding between them. According to the study, attempts to settle sexual issues are impacted by the spouses' failure to open up to one another, which in essence relies on communication challenges between spouses. Additionally, depending on the event and the circumstances surrounding it, personal factors like gender and age may or may not have an impact on marital dissatisfaction (Tolorunleke et al., 2021).

The Female Sexual function Index (FSFI) (Rosen et al., 2000) is a broadly used indicator of female sexual dysfunction. Desire, stimulation, lubrication, orgasm, pleasure, and pain are the six dimensions assessed. For each subscale, validation studies in women aged 21 to 70 have shown strong internal constancy and 2–4 week test-retest consistency.

The Sexual Activity Questionnaire (SAQ) is a short, self-reported measure of sexual behavior that was initially created to assess the influence of tamoxifen medication on sexual activity in women at risk of developing breast cancer (Thirlaway et al., 1996). Derogatis et al. (2008) established the Female Sexual Suffering Scale (FSDS) to assess women's sexually related psychological misery. The Sexual Function
Questionnaire was created as a 31-item standardized screening tool for female sexual dysfunction. The seven domains of female sexual function measured include desire, physiological arousal-sensation, physiological arousal-lubrication, enjoyment, sexual desire, pain, and relationships with others (Infrasca, 2011). Some of these scales are more specialized, testing certain aspects of sexual functioning, such as sexual dysfunction, or additional features of sexual disorders, and others are broader in nature, assessing multiple facets of sexual disorders (Rosen et al., 2000).

Therefore, the current study focuses on the scale development of psychosexual difficulties in married females with the goal of assessing manifestations of psychosexual disorders within our cultural context. The prevalence and rise in female sexual dysfunctions have prompted the development of a standardized test to assess the manifestations of sexual problems and their impact on the female population.

**Scale Conceptualization**

Human sexuality is multifaceted and complicated, encompassing biological, psychological, social, and cultural factors. Sexual difficulties that are psychosomatic in nature and occur in the absence of any pathological illness are referred to as psychosexual diseases. They might be caused by physical, environmental, or psychological reasons, and it can be difficult to distinguish between them. Women's sexuality is an important aspect of their quality of life and is linked to their psychosocial well-being. Female sexual dysfunction (FSD) affects 19%–50% of women and can be caused by a number of variables, including biological, hormonal, and anomalies in nervous system, pelvic dysfunction, medications or drug misuse, and psychological or socio-cultural issues (Lucas & Fox, 2018).

Women are the most significant members of our society, and they are seen as powerful in every way. They do, however, experience issues in every facet of their lives as human beings. The sexual region is one area where women are overlooked, and difficulties in this area are not considered serious, and these issues are ignored in our culture. They did not communicate these troubles and sought no help to resolve them due to a lack of awareness and cultural taboo, resulting in one of many sexual problems. Despite its high incidence, females’ sexual problems remains under-recognized and under-treated, owing to the fact that few women seek help and that most health care providers do not openly inquire about female patients’ sexual function. Because sexual dysfunction is a self-reported illness, physicians must ask direct questions regarding sexual health to correctly diagnose FSD (Daker-White, 2002).

However, speaking directly to women about their sexual life and interpreting their responses may be difficult. As a result, a standardised, validated scale that assesses various dimensions of female sexual function can be a useful tool. In our culture, talking about sexual topics is considered taboo. There is a scarcity of prior literature on these psychosexual concerns and there is limited scale related to our cultural context which talked about such issues. The rationale of this research was to develop a culturally based psychosexual difficulty scale that appropriately indicated the severity of these problems. There was a need to design a psychosexual issue scale regarding our cultural setting for the reasons stated above.

Objectives of the current study are:
1. In the context of Pakistani culture, develop and validate the female psychosexual problem scale (FPPS).
2. Identify the psychometric characteristics of the indigenously constructed scale FPPS for married women.
Development of the Scale
Phase I
Item Generation (Exploring Phenomenology)
In order to explore phenomenology 35 married women between the ages of 20 and 35 who had been married for five to six years participated in in-depth interviews. Through interview troubles faced by women in their life were explored. After exploring the problems, 35 statements were generated.

Phase II
Expert Validation (Empirical Validation)
Content Validity
To fine-tune the item pools and assess the fit between suggested items and their intended construct definitions, eight expert panelists were invited. A preliminary set of questions was sent to four psychologists who had studied gender-related difficulties or pertinent behaviors as well as four gynecologists. These professionals carefully examined the developed scale to determine the types of sexual issues that women experience during their marriages. The degree to which the content of each assessed item matched the target definition was rated by the experts based on construct definitions that were provided to them. The panelists’ open-ended suggestions for scale improvement were taken into consideration, and certain items were added, or the prior ones were adjusted accordingly. The initial total pool of 35 items was reduced to 32 based on panelists’ responses.

Sampling
Using a purposive sampling technique, sample of 160 married females was taken from various settings. The age of participants ranges from 20 to 35 years. The minimum qualification of participants was matriculation and married for at least 4 years.

Data Collection Instrument
The FPPS scale was distributed among participants in the data collection of psychosexual problem measures. The FPPS scale comprised 32 items related to women's personal perceptions of psychosexual issues in their married life. A 4-point Likert scale was used to score the items, with 1 representing never and 4 representing always. Demographic information was included in the survey instrument to help characterize the sample. All data and records collected in person were kept.

Factor Analysis of Female Psychosexual Problem Scale
Principal Component Factor analysis was used to cluster the items into the factors and common themes. Factor analysis is used to see the relationship between complex variables and also to reduce the data and it also determines the structure of the data and subsiding a large number of variables into a few interpretable fundamental features. (Cattell, 1952). Factor analysis was also used to exclude the dubious items. The total number of factors were determined through scree plot. Scree plot is a statistical method that is used in principal components analysis to visually measure which components or factors explain most of the inconsistency in the data (Zhu & Ghodsi, 2006). Those factors were finalized which were falling in the elbow of scree plot. Factor structure was determined through principal component analysis and Varimax Rotation.
Table 1
One factor solution on Female Psychosexual Problem Scale (N=160)

<table>
<thead>
<tr>
<th>Serial #</th>
<th>Items</th>
<th>Factor Loading</th>
<th>Serial #</th>
<th>Items</th>
<th>Factor Loading</th>
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<td>17</td>
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<td>.750</td>
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<td>.650</td>
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</table>

The Table 1 is showing the one factor loading on 32 items of female psychosexual problem scale and for this purpose factor analysis was done with one factor and prevalence rate of each psychosexual problem was identified.

**Extraction of Factors of the Female Psychosexual Problem Scale**

The factors were determined through scree plot indicated that maximum variance is explained by one component as lying above the point if inflexion. The KMO and Bartlett test was also used to determine whether we can factorize the original variables or not. The value of the KMO and Bartlett’s test was 4193.38 and df was 496. Kaiser’s criterion (1974) was used to determine factor structure and to analyze which factor would be retained according to these criteria. Those factors that had Eigenvalue of above 1 were retained and those were excluded that had Eigenvalue less than .01 were excluded. According to Kaiser's criterion, a one-factor analysis was conducted, and only factors with an Eigenvalue of .4 were kept in the analysis, while items with an Eigenvalue of less than 0.4 were removed.

CFA was utilized to confirm the factor structure that was acquired by EFA. Items having factor loadings in EFA greater than or equal to 0.4 have been eliminated from the analyzed model. The first step’s single factor CFA failed to offer a statistically acceptable fit. Only after removing specific components displaying significant high factor loading were satisfactory indices of fit for a one component model of the FPFS achieved.
Table 2

*Fit Indices of FPPS used in the Study (N=160)*

<table>
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<th>Scale</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CMIN/DF</th>
<th>IFI</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
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</thead>
<tbody>
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<td>Model 1</td>
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<td>4.34</td>
<td>.84</td>
<td>.81</td>
<td>.84</td>
<td>.11</td>
</tr>
<tr>
<td>Model 2</td>
<td>251.06</td>
<td>98</td>
<td>2.56</td>
<td>.89</td>
<td>.93</td>
<td>.93</td>
<td>.08</td>
</tr>
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Model 1= Default mode of FPPSPS  
Model 2= M1 after adding co-variances

Table 2 illustrates the model fit indices of the scale FPPSPS. Model 1 represents fit indices for Default model with values which were not in desired limit. Model 2 shows values after adding covariances to achieve goodness of model fit. The validity indices Normed Fit Index (NFI), Incremental Fit Index (CFI), and Comparative Fit Index (CFI) in model 2 are in acceptable range. The values of the indices are above .80. This shows that the scale used in the study are now valid. Moreover, the value of the Root Mean Square Error of Approximation (RMSEA) for model 2 is also in acceptable range indicating good model fit.
Table 3

Internal Consistency of Psychosexual Problem Scale (N = 160)

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<tbody>
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<td>.69</td>
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<td>.67</td>
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<td>.67</td>
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<td>.62</td>
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</table>

Table 3 demonstrates that there is a strong constructive correlation among each item's score and the FPSPS overall score. According to the significant positive correlations all of the items were addressing the very same construct.

Discussion

The ambition of this study was to develop and validate FPPS, an inclusive and self-reported research instrument for measuring psychosexual functioning among non-clinical married females from various...
settings such as hospitals, gynecology wards, housewives, teachers, etc. FPFS is described here using modern methods, psychometric features, and support for the development of a novel multidimensional scale. After thorough evaluations of other competing models that are published in the literature, evidence was provided to support the scale's internal consistency (DeRogatis et al., 2008; Infrasca, 2011; Rosen et al., 2000).

Various scales have been used in previous research to assess sexual performance. Some of these scales are more specific, measuring only certain areas of sexual functioning, sexual dysfunction, or other aspects of sexual difficulties, while others are more comprehensive, examining numerous areas of sexual performance, sexual dysfunction, or other aspects of sexual disorders, or diverse features of sexual afflictions. While it is evident that there are a multitude of standardized measures and subscales for assessing psychosexual difficulties in females, the question of the local relevance of selected items on many of these scales remains unsolved (Shahid et al., 2017).

The FPFS strength comes from focusing on the prevalent psychosexual experiences, backgrounds, and situations of females in low- and middle-income country. Despite the abundance of scales, there is a scarcity of scales that are culturally sensitive and have been developed and validated (Rosen et al., 2000). Therefore, the current study is intended to develop a standardized scale to determine the manifestations of psychosexual issues and their impact on specifically on women because women are the one who suffer more from these issues.

First step in the development of FPFS scale was exploring phenomenology for this purpose an in-depth interview with 30 married females aged 20 to 35 years old was done following 5-6 years of marriage. The psychosexual difficulties that women encounter in their lives were investigated through interviews and open-ended questions. Following the exploration of the issues, 35 statements were generated.

The second step in the development of FPFS was expert validation or empirical validation the experts included in this study were psychologists and gynecologists, in this phase. Eight expert panelists were asked to help refine the item pools and assess the fit between proposed items and the construct definitions. These experts reviewed the constructed scale in depth to determine what types of sexual problems women have in their married lives. After expert validation finally 32 items scale was retained.

In the third step principal component Factor analysis was made to determine the structure of data and to reduce a huge number of variables into a few interpretable essential features. (Cattell, 1952). The dubious items were also eliminated using factor analysis. Scree plots were used to calculate the total number of factors (Zhu & Ghodsi, 2006). Those components that fell on the scree plot's elbow were confirmed. The factor structure was discovered using principal component analysis. An exploratory factor analysis was used to compress the data into a more comprehensible collection of summary variables and to explore the theoretical structure that underlies the phenomenon being studied.

Firstly, three factors were made to identify any theme from the items, but the themes were not clear so the two factor analysis was done to find out theme behind each item but as the themes were not clear and has no cultural relevance so the Kaiser’s Criterion was followed. By using Kaiser’s criterion (1974) those factors that had Eigen value of above 1 would retain and those were excluded that had Eigen value of below 1. Kaiser's criteria were used to extract one factor, and only factors with Eigen values of .4 or higher were kept, while factors with Eigen values lower than .4 were removed.
from the sample. So many items were falling on low Eigen value as most of the items were dubious and overlapping so finally one factor structure was made and 16 items were retained after exploratory factor analysis. Confirmatory factor analysis was then computed to validate the factor structure and determine whether the data were consistent with the proposed measurement model. In the path diagram for the CFA, it was discovered that all the standardized path coefficients were statistically significant and conspicuous. Additionally, the goodness of fit tests and all fit indices pointed to a good fit between the proposed model and the data. The items on the final scale were selected based on three criteria: content covering crucial problems in psychosocial functioning, item reliability (measured by the item's contribution to the scale reliability), and confirmatory factor analysis factor loading. An item must be inclined to assemble these qualities in order to be listed as an item on the FPPS scale. Finally, with no underlying theme, a 16-item scale was retained and confirmed using confirmatory factor analysis.

To summarize, the FPPS is a valid and reliable measure that not only measures problems in a cultural context, but also interpersonal functioning, experience, and expressions of females regarding sexual concerns. The FPPS can also be utilized to establish and construct appropriate management options for females who are experiencing psychosexual difficulties (both at baseline and after interventions).

**Implications**

- The current study offers information on the prevalence rate, experience, and expression of psychosexual problems among married females.
- The indigenous scale could also be used for assessment protocol in further research studies.
- This study also discussed deeply the core and culturally tabooed issues in our culture. This study also gives the accurate manifestation of psychosexual issues in our culture and also gives differences between Eastern and Western culture regarding these issues.
- Early and timely identification of psychosexual problems will also help in estimating the need for intervention and establishing the management plan.
- Emphasis can be given to conducting workshops and awareness campaigns for the general public.

**Limitations and Suggestions**

In current study following are the limitations and suggestions:

- Further study with a larger sample size can be conducted to obtain more trustworthy results.
- A male sample can be used in future studies to compare results based on gender.
- This research has paved the way for detailed epidemiological research to pinpoint the causes of psychosexual problems as well as a better management strategy to handle these sensitive issues.
- More investigations is needed to determine the association between psychosexual disorders and various variables such as marital discord, marital satisfaction, spousal acceptance rejection, and so on.

**Contribution of Authors**

Haleema Adnan: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft
Samina Rashid: Methodology, Writing - Reviewing & Editing, Supervision
Noman Aftab: Methodology, Writing - Reviewing & Editing

**Conflict of Interest**

There is no conflict of interest declared by the authors.
Source of Funding
The authors declared no source of funding.

Data Availability Statement
The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [H.A.] upon the reasonable request.

References


