WOMEN'S SEXUAL HEALTH

Preliminary Validation of a German Version of the Sexual Complaints Screener for Women in a Female Population Sample

Andrea Burri, DrSc,[1,2] and Hartmut Porst, MD[1,2]

ABSTRACT

Background: To date, neither the original English nor any of the translated versions of the Sexual Complaints Screener for Women (SCS-W) have been tested for their psychometric properties.

Aim: To evaluate the validity and utility of the German version of the SCS-W by assessing content, convergent, and discriminant validity.

Methods: A population sample of 309 women (mean age = 26.9 years) completed the online survey and had matching data available on the SCS-W and the Female Sexual Function Index (FSFI). Spearman bivariate correlations between the SCS-W and FSFI domain scores and exploratory factor analysis with principal component analysis were conducted.

Outcomes: Convergent validity was excellent for the domain of orgasm, good for satisfaction, dyspareunia, and the total questionnaire score, and acceptable for desire, lubrication, arousal, and vaginismus. Discriminant validity was present for all domains apart from arousal, lubrication, and vaginismus. Varimax rotation suggested an 8-factor model was the most robust.

Clinical Implications: This brief screener seems suitable to provide a brief overview of female patients' sexual problems in a clinical setting.

Strengths and Limitations: This is the 1st study to assess the psychometric properties of the German version of the SCS-W. However, available information on the psychometric properties of the German SCS-W was limited because the validity of the screener could not be counterchecked against a clinical diagnosis of female sexual dysfunction.

Conclusion: Our results provide preliminary evidence of good validity of the German version of the SCS-W. Overall, the SCS-W can offer support for clinicians who are less familiar with sexual medicine and who might not routinely discuss sexual issues with their patients. **Burri A, Porst H. Preliminary Validation of a German Version of the Sexual Complaints Screener for Women in a Female Population Sample. Sex Med 2018;6:123–130.**

Key Words: Female Sexual Dysfunction; Assessment; Sexual Complaints Screener for Women (SCS-W); Validation; Psychometric Properties; Screener

INTRODUCTION

Although a multitude of well-established and validated questionnaire and assessment instruments exist in sexual medicine, it has become obvious that there is a great need for a comprehensive self-report screener for sexual dysfunctions—in men and women—that can be easily and quickly administered by non-specialized clinicians to capture sexual complaints across various domains. Such a screener is primarily meant to initiate and facilitate communication about sexual issues between the clinician and the patient. As such, the screener can offer support for clinicians who are less familiar with sexual medicine and who might not routinely discuss sexual issues with their patients and provide information on where and whether further assessment of sexual problems is indicated.

Received October 23, 2017. Accepted January 2, 2018.

[1]European Institute for Sexual Health, Hamburg, Germany;

[2]Private Institute for Andrology and Urology, Hamburg, Germany

https://doi.org/10.1016/j.esxm.2018.01.001

A problem of short screeners or single-item measures is that they are often viewed as psychometrically suspect and harbor a heightened risk for random measurement errors and biases, which are less likely to occur in larger multiple-item questionnaires. Nevertheless, the use of short screeners or single-item measures has many appealing advantages. Not only can survey lengths be shortened, thus lowering research costs, but also using short instruments is "ethically" favorable because they are less of a burden and less monotonous for respondents and thus might lead to greater survey effectiveness, especially in difficult clinical populations.

Despite the need for a brief, initial screening instrument for sexual problems, relatively little work has been done to develop and evaluate the validity and utility of using short screeners or even single-item measures in sexual medicine. One such attempt was conducted in 2010 by Kriston et al[1] who suggested a 1-question screener asking about overall sexual satisfaction. With a dichotomous response option, this item showed 76.4% sensitivity and 76.5% specificity in the test sample (N = 6,194). A more extensive 5-item version showed a more favorable sensitivity (83.1%) and specificity (81.2%) profile. Similarly, a fast screener of female sexual dysfunction (FSD) for easy use in outpatient visits, an abridged 6-item versions of the popular Female Sexual Function Index (FSFI; 19-item in its original version),[2] was developed by Isidori et al[3] based on the Italian FSFI version. The initial validation study showed an adequate sensitivity and specificity profile (0.93 and 0.94) and good reliability, internal consistency, and retest stability.[3] Following up on attempts to produce a short version of the FSFI, Maseroli et al[4] presented an altered Italian version of the Female Sexual Dysfunction Index—6 (FSDI-6). In this version, an item related to personal interest in having a satisfying sex life was added, whereas the item related to sexual arousal was removed. Limiting the validity of the 2 screeners is the fact that they lack more extensive and especially cross-cultural validation, because these versions were based on the Italian FSFI version without further psychometric analysis. To address these limitations, Carpenter et al[5] developed a psychometrically solid short version of the English-language FSFI. Results of their analysis indicated that a 9-item scale provided more information than the FSFI-6 version across a spectrum of sexual functioning. However, this brief scale needs further validation.

Recently, former members of the FSD subcommittee of the European Society for Sexual Medicine (ESSM) acknowledged the demand for a brief screening measure of sexual problems and subsequently developed such a screener for women. The construction of the screener was largely based on methods used in previous epidemiologic research.[6] In a group meeting, the former members of the ESSM FSD subcommittee developed items based on prior research evidence and clinical practice. These items were presented to the International Society for Sexual Medicine (ISSM) standards committee who, after jointly discussing and revising the items until reaching consensus about their content, sent the screener to all members of the ISSM standards committee for final approval.[7,8]

Simultaneously and using a similar process, a short screener for male sexual dysfunction was developed to have similar length and structure as the female screener. For the development of the Sexual Complaints Screener for Women (SCS-W), the FSD subcommittee relied on current definitions of FSD, its different domains, and key diagnostic criteria, such as presence of personal distress. In the end, 10 items were constructed, each consisting of an a-series in which the degree of the specific dysfunction is rated and a b-series in which the degree of personal distress caused by that specific dysfunction is assessed. The domains that are intended to be covered by the SCS-W are sexual desire or interest, objective and subjective arousal, orgasm, pain, vaginismus, persistent genital arousal disorder, and sexual satisfaction. Response options are rated on a 5-point Likert-type scale for all items (0 = "never" to 4 = "almost all the time/always" for the a-series and 0 = "not at all a problem" to 4 = "a very great problem" for the b-series).

At this stage, neither the original English nor any translated versions of the SCS-W have been tested for their psychometric properties such as reliability or validity; therefore, at this stage, no statements regarding its accuracy, sensitivity, and specificity in identifying patients with a potential sexual problem can be made. The purpose of this study was to evaluate the validity and utility of the German version of the SCS-W to be used as a routine screening instrument in daily clinical practice by assessing the content and convergent and discriminant validities of the screener in a population sample of women (N = 309).

METHODS

Participants

The data used in this present study were collected within the context of a larger project looking at women's perception of male ejaculatory function. The initial study was set up in Zurich, Switzerland as a cross-sectional online survey in which self-reported data were collected using a set of validated and study-specific questionnaires. The survey took approximately 30 minutes to complete. To be included in the survey, women had to be 18 to 75 years of age and have engaged in sexual intercourse at 1 point in their lives (determined by the question, "Have you ever been sexually active?"). At the stage of recruitment, no further inclusion or exclusion criteria were imposed on the sample to maintain population representativeness. At the end of the 4-month recruitment phase, data were available on 425 participants. Because of missing values in the FSFI and the SCS-W (>20% of questions), 114 women were excluded from the study. Hence, the final sample included in the present study of 309 women represents 72.7% of participants who started the survey.

The mean age of participants was 26.9 years (SD = 6.6). The sample was predominantly Swiss (84.7%), with 8.44% German and 6.82% "other" nationalities (predominantly Italian, Spanish, and Austrian). Most participants had completed high school or

its equivalent (73.14%), most had attended university (42.72), 64.1% were in a relationship at the point of completing the survey, and 94.8% identified themselves as heterosexual, 1.6% as homosexual, and 3.6% as bisexual.

Recruitment and Procedure

Recruitment was achieved through word-of-mouth recommendations and by advertisements throughout universities and on various social media platforms such as Facebook. The survey started on September 1, 2014 and the online questionnaires were accessible until January 31, 2015. The survey started with a declaration of consent ensuring the subject's ethical rights in accordance with the guidelines of the Declaration of Helsinki. To consent, participants had to tick a box. Without ticking this box, they could not proceed to the online survey. In the introductory paragraph, participants also were informed about the intimate nature of the questions, that the assessment was fully anonymous and voluntary, and about their right to withdraw from the study at any time (in which case, their data collected until then would be deleted). Ethical approval was obtained by the ethics committee of the Department of Psychology at the University of Zurich (Zurich, Switzerland).

Measures

The SCS-W is a sex-specific screening tool estimating female sexual complaints during the past 6 months.[7,8] The questionnaire consists of 10 items rated on a 5- to 6-point Likert-like scale. In addition to the assessment of sexual complaints, the associated perception of the complaints as a personal problem (distress) is measured. Up to this point, there have been no published surveys testing their psychometric properties and the quality of the criteria remains unknown.[7]

In addition to the SCS-W, the FSFI was used.[2] The FSFI is a 19-item self-report questionnaire assessing female sexual functioning in the past 4 weeks. It addresses 6 subdomains of sexual functioning including desire, arousal, lubrication, orgasm, satisfaction, and sexual pain. Response options are rated on a Likert-type scale ranging from 5 to 6 points for the frequency and level of the 6 dimensions. The total score can be determined through a computational algorithm described by Rosen et al.[2] Higher scores indicate better sexual functioning. The questionnaire shows good psychometric properties for total scores and subscales, with internal consistencies (Cronbach α) of 0.89 to 0.95 and adequate test-retest reliability (r) of 0.43 to 0.86. Analyses of sensitivity and specificity yielded a score no higher than 26.55 to indicate potential FSD without it being a clinically diagnosis. It is recommended to combine the FSFI with the assessment of sexual distress.[9] In the present study, the validated German version was used.[10]

Data Analysis

Missing data (<20%) in the FSFI were handled using mean imputation. Convergent and discriminant validities were calculated, which are considered subcategories of construct validity. For convergent validity, we calculated Spearman bivariate correlations (r) between the single-item SCS-W domain score and the FSFI individual and total scores of the corresponding subscale (apart from persistent genital arousal in the SCS-W, which has no corresponding subscale in the FSFI). The SCS domains vaginismus and dyspareunia were correlated with the FSFI pain items and total subdomain scores, because the FSFI does not specifically discriminate between these 2 domains. Correlation coefficients ranging from 0.00 to 0.25 indicate little or no relation, those ranging from 0.25 to 0.50 suggest a fair degree of relation, those ranging from 0.50 to 0.75 are considered moderate to good, and those higher than 0.75 are considered good to excellent.[11]

To assess discriminant validity, we calculated bivariate correlations between single-item domain scores and non-corresponding FSFI subscale scores. Discriminant validity was present when an item had a significantly higher correlation with

Table 1. Convergent validity: bivariate correlations between SCS single-item domain scores and corresponding FSFI subscale item and total domain scores

	FSFI*					
SCS	Item 1	Item 2	Item 3	Item 4	Total subdomain	Total FSFI
Desire	0.477‡	0.436	—	—	0.442	—
Arousal	0.352	0.293	0.424‡	0.275	0.405	—
Lubrication	0.421‡	0.334	0.293	0.299	0.392	—
Orgasm	0.764‡	0.732	0.624	—	0.573	—
Satisfaction	0.426	0.532	0.656‡	—	0.595	—
Vaginismus	0.429‡	0.208†	0.452	—	0.433	—
Dyspareunia	0.635‡	0.524	0.580	—	0.687	—
Total SCS	—	—	—	—	—	0.672

FSFI = Female Sexual Function Index; SCS = Sexual Complaints Screener.
*Items 1 to 4 correspond to individual FSFI items for each subscale in the specific order that they are presented in the original FSFI questionnaire.
†*P* value is significant at less than 0.005; all other *P* values are significant at less than 0.0001.
‡Highest domain item correlations.

Table 2. SCS-W domain items and corresponding FSFI subdomain item that showed the highest correlations

SCS-W	FSFI
Some women experience lack of or low sexual interest or desire in sex.	Over the past 4 weeks, how *often* did you feel sexual desire or interest?
Some women do not feel sexually turned on or do not have pleasurable sexual feelings when engaging in sexual activity.	Over the past 4 weeks, how *confident* were you about becoming sexually aroused during sexual activity or intercourse?
Some women do not experience physical sexual excitement (eg, genital swelling, vaginal wetness, tingling sensation) during sexual stimulation and/or sexual activity.	Over the past 4 weeks, how *often* did you become lubricated ("wet") during sexual activity or intercourse?
Some women experience difficulties reaching orgasm during sexual activities despite feeling sexually excited.	Over the past 4 weeks, when you had sexual stimulation or intercourse, how *often* did you reach orgasm (climax)?
During the past 6 months, my sexual life has been: unsatisfying to satisfying	Over the past 4 weeks, how *satisfied* have you been with your overall sexual life?
Some women experience genital pain during or shortly after sexual activity.	Over the past 4 weeks, how *often* did you experience discomfort or pain during vaginal penetration?
And	
Some women experience difficulties allowing vaginal penetration despite their wish to do so.	

FSFI = Female Sexual Function Index; SCS-W = Sexual Complaints Screener for Women.

its own dimension compared with other dimensions (referred to as "scaling success"). To assess the significance of the difference between the correlation coefficients, we used Fisher r-to-z transformation.

Because the distribution of the FSFI and SCS-W items showed significant skewness and kurtosis, statistical methods for factor analysis were chosen that do not require normality of the data. For verification of the 6-factor structure of the FSFI in our population, exploratory factor analysis (EFA) was conducted with principal component analysis (PCA) for estimation of factors.[12,13] PCA also was conducted to establish the structure of the SCS-W. PCA is the most commonly used method of factor analysis and makes no assumptions about the distribution of the data. PCA was conducted for the FSFI (to confirm the factor structure in our sample) and the SCS-W. The Kaiser-Meyer-Olkin measure of sampling adequacy was used to assess the aptitude of the questionnaire items to be included in the factor analysis. Kaiser-Meyer-Olkin values higher than 0.80 were considered optimal and those lower than 0.5 were considered insufficient.[14] The varimax rotation method was used to rotate the axes such that the eigenvectors remain orthogonal and the different factors remain uncorrelated as they are rotated. Varimax rotation maximizes the weighted sum, reflecting a concern for simple structure within variables and within factors. Statistical criteria for item inclusion were factor loadings higher than 0.5 and low cross-factor loadings. Items loading no higher than 0.49 were excluded from the model.[15]

All analyses were conducted using STATA 14 (StataCorp LP, College Station, TX, USA). Owing to deviation from the normal distribution of most variables, non-parametric statistical methods were chosen for all analyses. Ordinal scaled variables were treated in a continuous manner. For all analyses, a *P* value less than 0.05 was considered statistically significant, unless stated otherwise.

RESULTS

According to the bivariate correlations, the convergent validity of the SCS-W was good to excellent for the domain of orgasm,

Table 3. Discriminant validity: bivariate correlations between SCS single-item domain scores and non-corresponding FSFI domain scores

	FSFI											
	Desire		Arousal		Lubrication		Orgasm		Satisfaction		Pain	
SCS	r_s	*P* value	r_s	*P* value	r_s	*P* value	r_s	*P* value	r_s	*P* value	r_s	*P* value
Desire	—	—	0.323	0.000	0.240	0.000	0.117	0.072	0.226	0.001	0.126	0.057
Arousal	0.256	0.000	—	—	0.313	0.000	0.198	0.002	0.232	0.001	0.227	0.001
Lubrication	0.168	0.006	0.357	0.000	—	—	0.185	0.005	0.165	0.014	0.259	0.000
Orgasm	0.067	0.279	0.363	0.000	0.155	0.018	—	—	0.308	0.000	0.126	0.059
Satisfaction	0.402	0.000	0.472	0.000	0.208	0.001	0.327	0.000	—	—	0.082	0.217
Vaginismus	0.189	0.003	0.064	0.338	0.385	0.000	0.065	0.326	0.044	0.520	—	—
Dyspareunia	0.148	0.017	0.208	0.001	0.407	0.000	0.135	0.038	0.151	0.023	—	—

FSFI = Female Sexual Function Index; SCS = Sexual Complaints Screener.

Table 4. Statistical significance of difference in correlations between the SCS-W and corresponding FSFI domain (convergent validity; Table 1) and the SCS-W and non-corresponding FSFI domain (discriminant validity; Table 3) based on the highest correlation presented in Table 3

SCS-W	Z	*P* value
Desire	1.74	0.041
Arousal	1.42	0.078
Lubrication	0.57	0.281
Orgasm	3.3	0.0005
Satisfaction	3.21	0.0007
Vaginismus	0.71	0.2389
Dyspareunia	5.08	0.0001

FSFI = Female Sexual Function Index; SCS-W = Sexual Complaints Screener for Women.

good for satisfaction, dyspareunia, and the total questionnaire score, and acceptable for desire, lubrication, arousal, and vaginismus (Table 1). The FSFI subdomain items correlating highest with the corresponding SCS-W domains are listed in Table 2. Discriminant validity was present when an item had a significantly higher correlation with its own dimension compared with other dimensions (Table 3). This was the case for all domains apart from arousal, lubrication, and vaginismus (Tables 3 and 4).

According to Kaiser-Meyer-Olkin criteria for sampling adequacy, none of the FSFI items had to be excluded from the PCA, with values ranging from 0.67 to 0.93. For the SCS-W, values were 0.71 for desire, 0.74 for arousal, 0.79 for lubrication, 0.69 for orgasm, 0.73 for dyspareunia, 0.69 for vaginismus, 0.72 for satisfaction, and 0.49 for persistent genital arousal disorder (results not shown). Because of the single-item nature of the questionnaire, the persistent genital arousal disorder item was retained for EFA. Un-rotated EFA identified 5 factors with eigenvalues higher than 1 for the original FSFI (Table 5). Although the 6th factor had a slightly lower eigenvalue (0.87), subsequent varimax rotation using a 6-factor structure yielded the most consistent pattern of factor loadings, justifying the inclusion of this factor. Varimax orthogonal rotated factor loadings and unique variances are listed in Table 6. According to this pattern matrix, no items with complex loadings could be identified for the FSFI.

For the SCS-W, un-rotated PCA resulted in 8 factors with only 2 having eigenvalues higher than 1 (Table 5). Although factors 6, 7, and 8 showed low eigenvalues, these factors were included in the EFA because of the results of subsequent varimax rotation, which suggested an 8-factor model as the most robust (Table 7). In this 8-factor varimax solution, no items with complex loadings could be identified for the FSFI. As expected, unique variances were 0 for all items.

DISCUSSION

The relatively high prevalence of sexual complaints in the female population and the detrimental effects that sexual problems can have on overall quality of life require a routine screening tool for sexual problems in female patients presenting to clinicians. The availability of a short screener that can be easily administered by non-specialized clinicians is of great clinical use because it can help initiate and facilitate communication about sexual issues. In addition, epidemiologic research and studies can profit from such brief screeners especially when the assessment of sexual problems is not the primary focus of the study but could—without much effort and time investment for the participant—be simultaneously assessed. For this, brief but accurate instruments developed on a sound scientific basis with good psychometric properties are necessary.

Table 5. Results of exploratory factor analysis for the FSFI and SCS-W*

Factor	Eigenvalue	Difference	Proportion	Cumulative
FSFI				
Factor 1	6.55588	3.70370	0.3450	0.3450
Factor 2	2.85217	0.98958	0.1501	0.4952
Factor 3	1.86259	0.65875	0.0980	0.5932
Factor 4	1.20385	0.10784	0.0634	0.6566
Factor 5	1.09601	0.21972	0.0577	0.7142
Factor 6	0.87629	0.21221	0.0461	0.7604
SCS				
Factor 1	2.55120	1.28380	0.3189	0.3189
Factor 2	1.26740	0.28561	0.1584	0.4773
Factor 3	0.98179	0.13473	0.1227	0.6000
Factor 4	0.84706	0.09986	0.1059	0.7059
Factor 5	0.74719	0.13594	0.0934	0.7993
Factor 6	0.61125	0.08392	0.0764	0.8757
Factor 7	0.52732	0.06053	0.0659	0.9417
Factor 8	0.46680	—	0.0583	1.0000

FSFI = Female Sexual Function Index; SCS-W = Sexual Complaints Screener for Women.
*The initial un-rotated factor solution resulted in a satisfactory 5-factor structure for the 2 questionnaire versions.

Table 6. Varimax orthogonal rotated factor loadings (pattern matrix) and unique variances of Female Sexual Function Index items

Item	F1	F2	F3	F4	F5	F6	Uniqueness*
D1	—	—	—	—	—	0.89	0.18
D2	—	—	—	—	—	0.82	0.24
A1	—	—	—	0.70	—	—	0.30
A2	—	—	—	0.76	—	—	0.26
A3	—	—	—	0.70	—	—	0.30
A4	—	—	—	0.54	—	—	0.32
L1	—	0.63	—	—	—	—	0.28
L2	—	0.74	—	—	—	—	0.27
L3	—	0.79	—	—	—	—	0.28
L4	—	0.83	—	—	—	—	0.18
O1	0.88	—	—	—	—	—	0.16
O2	0.83	—	—	—	—	—	0.25
O3	0.83	—	—	—	—	—	0.21
S1	—	—	0.84	—	—	—	0.22
S2	—	—	0.77	—	—	—	0.23
S3	—	—	0.81	—	—	—	0.19
P1	—	—	—	—	0.78	—	0.25
P2	—	—	—	—	0.81	—	0.25
P3	—	—	—	—	0.85	—	0.17

A = arousal; D = desire; F = factor; L = lubrication; O = orgasm; P = pain; S = satisfaction.
*The variability of a variable minus its communality.

We present for the 1st time some psychometric characteristics of the SCS-W as assessed in a population sample of 309 women with a mean age of 27 years. Convergent validity of the SCS-W was assessed by correlation with the matching FSFI subdomain. Results showed that convergent validity was acceptable to excellent for all domains, with correlations ranging from 0.39 to 0.69. In other words, the theoretically matching SCS-W and FSFI subdomains do indeed correspond with one another. To demonstrate construct validity, discriminant validity also must be present so that convergent evidence can be interpreted relative to discriminant evidence. For this, the patterns of intercorrelations between the non-matching domains should be low and correlations of the matching SCS and FSFI domains should be substantially greater. Accordingly, discriminant validity of the SCS-W was assessed by exploring the correlations between the SCS-W items and the non-matching FSFI subdomains. Results showed that discriminant validity was unsatisfactory (ie, non-significant) for arousal, lubrication, and vaginismus. However, it should be noted that the domains of sexual functioning show high intercorrelations and overlap and frequently correlations of up to 0.5 have been reported. This could be a reason why analyses failed to detect solid proof of discriminant validity. For construct validity, we were successful in identifying a 6-factor structure of the original SCS-W with moderate to high standardized factor loadings and no complicated item loadings. Overall these results offer support for the factorial validity of the instrument and demonstrate that each item really does assess a different aspect of sexual functioning and therefore might be regarded a unique and independent domain.

Table 7. Varimax orthogonal rotated factor loadings (pattern matrix) and unique variances of Sexual Complaints Screener for Women items

Item	F1	F2	F3	F4	F5	F6	F7	F8
D	—	—	—	—	—	0.95	—	—
A	—	—	—	—	—	—	0.94	—
L	—	—	—	—	—	—	—	0.94
O	0.98	—	—	—	—	—	—	—
Dysp	—	—	—	0.96	—	—	—	—
Vag	—	—	—	—	0.96	—	—	—
PGAD	—	—	0.99	—	—	—	—	—
Sat	—	0.97	—	—	—	—	—	—

A = arousal; D = desire; Dysp = dyspareunia; F= factor; L = lubrication; O = orgasm; PGAD = persistent genital arousal disorder; Sat = satisfaction; Vag = vaginismus.

In summary, the SCS-W presents a useful addition to the very scarce number of brief screeners available to capture female sexual problems. With its small number of items and good psychometric properties, the SCS-W has several advantages, because it can be used in clinical settings to quickly screen women for sexual problems and/or to assess treatment outcomes, especially when time pressure precludes the use of more lengthy and extensive inventories. It also can be be conveniently included in a large-scale survey without impeding data collection. Compared with the existing, although scarcely validated, brief inventories, such as the FSFI-6 or the FSDI-6, the SCS-W has the advantage that it was developed from scratch and specifically constructed by a panel of experts, based on knowledge gained from clinical practice and prior research evidence, and is not constituted of single items taken from larger questionnaires. Whether this truly represents an advantage has to be confirmed in future studies comparing the available brief inventories and counterchecking them against the clinical FSD diagnosis.

Limitations

Several potential limitations to the study need to be mentioned. (i) Caution should be applied when extrapolating the findings to other population or clinical samples. The generalizability of our results could be limited because a convenience sample of volunteers, instead of a random sample of the general population, was used. Furthermore, the representativeness of our sample might be biased not only because of the relatively young mean age and the means of recruitment, which was undertaken mainly in academic university settings, but also because women who participate in studies of such sensitive nature (ie, the main study was investigating women's perception of male ejaculatory function) might show different characteristics compared with women who would not consider revealing such "sensitive" information. (ii) Available information on the psychometric properties of the German SCS-W was limited because the validity of the screener could not be counterchecked against a clinical diagnosis of FSD but relied on a comparison with FSFI scores. Furthermore, reliability could not be assessed because of a lack of follow-up data that did not allow for the measurement of test-retest reliability. Future studies should consider using samples of women with a clinically established diagnosis of FSD to allow more in-depth exploration of the psychometric properties of the SCS-W such as reliability, sensitivity, and specificity. (iii) Discriminant validity was rather low, especially for the domains of arousal, lubrication, and vaginismus. This could be due to the high inter-relatedness of the various subdomains of sexual functioning that has been demonstrated in numerous previous studies. (iv) The findings cannot be extrapolated to the original English or any other translated version of the SCS-W for which the psychometric properties need to be assessed separately.

CONCLUSION

The German version of the brief screener for women's sexual problems demonstrated acceptable construct and factor validity in this population sample of 306 women and could be applied as an assessment tool for sexual problems not only in a clinical setting but also in research studies in which the main outcomes are not sexual problems. Because of the limited information that can be assessed by such a brief screener and because of good rather than excellent construct validity, it is not intended to replace a clinical diagnosis of FSD and should be seen as a support for clinicians in obtaining a quick overview about the patient's sexual health. Further utility and psychometric properties such as reliability should be investigated in greater depth in future studies.

Corresponding Author: Andrea Burri, DrSc, European Institute for Sexual Health, Neuer Jungfernstieg 6a, 22354 Hamburg, Germany. Tel: 4915257569456; Fax: 4940351117; E-mail: andrea.burri@kcl.ac.uk

Conflicts of Interest: Dr Burri is an advisory board member for Menarini and consultant for Recordati SpA. Dr Porst is a consultant and speaker for Menarini/Berlin Chemie and Recordati.

Funding: None.

STATEMENT OF AUTHORSHIP

Category 1

(a) Conception and Design
Andrea Burri
(b) Acquisition of Data
Andrea Burri
(c) Analysis and Interpretation of Data
Andrea Burri

Category 2

(a) Drafting the Article
Andrea Burri
(b) Revising It for Intellectual Content
Andrea Burri; Hartmut Porst

Category 3

(a) Final Approval of the Completed Article
Andrea Burri; Hartmut Porst

REFERENCES

1. Kriston L, Gûnzler C, Rohde A, et al. Is one question enough to detect female sexual dysfunctions? A diagnostic accuracy study in 6194 women. J Sex Med 2010;7:1831-1841.
2. Rosen RC, Brown C, Heiman J, et al. The Female Sexual Function Index (FSFI): a multi-dimensional self-report instrument for the assessment of female sexual function. J Sex Marital Ther 2000;26:191-208.

3. Isidori AM, Pozza C, Esposito K, et al. Development and validation of a 6-item version of the Female Sexual Function Index (FSFI) as a diagnostic tool for female sexual dysfunction. **J Sex Med 2010;7:1139-1146.**
4. Maseroli E, Fanni E, Fambrini M, et al. Bringing the body of the iceberg to the surface: the Female Sexual Dysfunction Index—6 (FSDI-6) in the screening of female sexual dysfunction. **J Endocrinol Invest 2016;39:401-409.**
5. Carpenter JS, Jones SM, Studts CR, et al. Female Sexual Function Index short version: a MsFLASH item response analysis. **Arch Sex Behav 2016;45:1897-1905.**
6. Oberg K, Fugl-Meyer K, Fugl-Meyer AR. On Swedish women's distressing sexual dysfunction: some concomitant conditions and life satisfaction. **J Sex Med 2005;2:169-180.**
7. Giraldi A, Rellini A, Pfaus JG, et al. Questionnaires for assessment of female sexual dysfunction: a review and proposal for a standardized screener. **J Sex Med 2011;8:2681-2706.**
8. Hatzichristou D, Rosen RC, Denogatis LR, et al. Recommendations for the clinical evaluation of men and women with sexual dysfunction. **J Sex Med 2010;7:337-348.**
9. Wiegel M, Meston C, Rosen R. The Female Sexual Function Index (FSFI): cross-validation and development of clinical cut-off scores. **J Sex Marital Ther 2005;31:1-20.**
10. Berner MM, Kriston L, Zahradnik HP, et al. Validity and reliability of the German Female Sexual Function Index (FSFI-D). **Geburtshilfe Frauenheilkd 2004;64:293-303.**
11. Portney LG, Watkins MP. Foundations of clinical research: applications to practice. Upper Saddle River, NJ: Prentice Hall Health; 2000. p. 742.
12. Fabrigar LR, Wegener DT, MacCallum RC, et al. Evaluating the use of exploratory factor analysis in psychological research. **Psychol Methods 1999;4:272-299.**
13. Lawley DN, Maxwell AE. Factor analysis as a statistical method. New York: Macmillan; 1971.
14. Cureton EE, D'Agostino RB. Factor analysis: an applied approach. Hillsdale, NJ: Lawrence Erlbaum Associates; 1983.
15. Comrey AL, Lee HB. A first course in factor analysis. 2nd ed. Hillsdale, NJ: Lawrence Erlbaum Associates; 1992.