

Cross-cultural adaptation for Brazilian Portuguese and measurement properties of sexual function questionnaires for women: a systematic review

Adaptação transcultural para o português brasileiro e propriedades de medida de questionários de função sexual para mulheres: revisão sistemática

Adaptación transcultural al portugués brasileño y propiedades de medición de los cuestionarios de función sexual femenina: una revisión sistemática

Maria Elisabete Salina Saldanha¹, Rosimeire Simprini Padula², Mariana Arias Avila³, Patricia Driusso⁴

ABSTRACT | This article aims to list questionnaires used to assess female sexual function, as well as to analyze the cross-cultural adaptation process for Brazilian Portuguese and the measurement properties tested. Search strategies were performed in the PubMed, Embase, CINAHL and LILACS databases, using words in English, Portuguese, and Spanish. Based on the inclusion criteria, data about the translation, cross-cultural adaptation, and measurement properties of each eligible questionnaire were extracted. The measurement properties reported were evaluated by two evaluators using the Consensus-based Standards for the Selection of Health Measurement Instruments (COSMIN) checklist. The search returned a total of 46,987 studies, of which 131 were read in full, and only 12 were included in the review. Of the seven instruments that assess female sexual function found only three had their psychometric properties evaluated as good, with the Female Sexual Function Index (FSFI) being the most validated instrument for different clinical populations. There is a need to improve the validated versions of sexual dysfunction assessment instruments for the female population throughout their life cycle.

Keywords | Sexuality; Physical Therapy Specialty; Psychometrics.

RESUMO | O objetivo deste estudo é elencar os questionários utilizados para avaliar a função sexual feminina, bem como analisar o processo de adaptação

transcultural para o português brasileiro e as propriedades de medida testadas. Para tanto, foram realizadas buscas nas bases de dados PubMed, Embase, CINAHL e LILACS, usando palavras em inglês, português e espanhol. A partir dessas buscas, foram extraídos dados sobre a tradução. a adaptação transcultural e as propriedades de medida de cada questionário elegível de acordo com os critérios de inclusão. As propriedades de medida relatadas nas publicações foram analisadas por dois avaliadores usando o checklist do COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN). Um total de 46.987 estudos foi encontrado, dos quais 131 artigos foram analisados integralmente, e apenas 12 foram incluídos na amostra. Foram encontrados sete instrumentos de avaliação da função sexual feminina, e apenas três tiveram suas propriedades psicométricas avaliadas como boas, sendo o Female Sexual Function *Index* o instrumento mais validado para diferentes populações clínicas. Conclui-se que existe a necessidade de aprimoramento das versões validadas de instrumentos de detecção de disfunção sexual para a população feminina durante todo o seu ciclo de vida.

Descritores | Sexualidade; Fisioterapia, Psicometria.

RESUMEN | El objetivo de este estudio es enumerar los cuestionarios utilizados en la evaluación de la función sexual femenina, así como analizar el proceso de adaptación

Corresponding address: Patricia Driusso – Rodovia Washington Luís, km 235 – São Carlos (SP), Brazil – ZIP Code: 13565-090 – E-mail: pdriusso@ufscar.br – Funding source: Coordenação de Aperfeiçoamento de Pessoal de Nivel Superior (Capes) – Conflict of interests: nothing to declare – Presentation: May. 5th, 2020 – Accepted for publication: October. 26th, 2021.

¹Universidade Cidade de São Paulo (Unicid) - São Paulo (SP), Brazil. E-mail: maria.saldanha@unicid.edu.br. ORCID-0000-0002-3051-6177

²Universidade Cidade de São Paulo (Unicid) - São Paulo (SP), Brazil. E-mail: rosimeire.padula@unicid.edu.br. ORCID-0000-0003-0903-770X

³Universidade Federal de São Carlos (UFSCar) - São Carlos (SP), Brazil. E-mail: m.avila@ufscar.br. ORCID-0000-0002-5081-5326

⁴Universidade Federal de São Carlos (UFSCar) - São Carlos (SP), Brazil. E-mail: pdriusso@ufscar.br. ORCID-0000-0001-8067-9786

transcultural al portugués brasileño y las propiedades de medición probadas. Para ello, se realizaron búsquedas en las bases de datos PubMed, Embase, CINAHL y LILACS, utilizando términos en inglés, portugués y español. Estas búsquedas resultaron en datos sobre traducción, adaptación transcultural y propiedades de medición de cada cuestionario elegible bajo los criterios de inclusión. Las propiedades de medición informadas en las publicaciones fueron analizadas por dos evaluadores utilizando la lista de verificación de *COnsensus-based Standards for the selection of health Measurement INstruments* (COSMIN). Del total

de 46.987 estudios encontrados, se analizó 131 artículos de manera completa y se incluyó solo 12 en la muestra. Se encontraron siete instrumentos de evaluación de la función sexual femenina, pero solo tres tuvieron sus propiedades psicométricas consideradas como adecuadas; y el Índice de Función Sexual Femenina es el instrumento más validado para diferentes poblaciones clínicas. Se concluye que es necesario mejorar las versiones validadas de instrumentos para evaluar la disfunción sexual femenina a lo largo de todo su ciclo de vida.

Palabras clave | Sexualidad; Fisioterapia; Psicometría.

INTRODUCTION

The prevalence of sexual dysfunctions is high in all genders, but it is more prevalent among women, ranging from 25 to 63%¹⁻³. Experienced by different socioeconomic classes^{1,3-6}, this condition can be associated with menopause (hypoestrogenism)⁷, perineal trauma, and surgical procedures⁸. Detecting sexual dysfunctions in women is underestimated due to several factors, either because of histories of sexual abuse or cultural and biological aspects^{9,10}. The assertive approach and the use of questionnaires to detect dysfunctions can help women who have difficulties in reporting their problems, minimizing discomfort during consultations and embarrassment when answering questions about sexuality¹¹.

Although specific questionnaires for assessing sexual function in women can be found in the literature, many of them were not developed in Brazil and do not consider the specific sociocultural characteristics of the Brazilian population^{12,13}. In these cases, one should carry out the translation and cross-cultural adaptation according to the Guidelines for Translation and Cross-cultural Adaptation of Questionnaires proposed by Beaton et al.14, as well as evaluate their measurement properties following the Consensus-based Standards for the Selection of Health Measurement Instruments (COSMIN)¹⁵. A difficulty persists, however, in choosing the questionnaire with the best psychometric properties for Portuguese and Brazil as to use it in clinical practice and in scientific research, given the lack of comparative information on the measurement properties of these questionnaires.

As such, this study sought to list the questionnaires used to assess female sexual function, as well as to analyze the process of cross-cultural adaptation to Brazilian Portuguese and evaluate the measurement properties tested.

METHODOLOGY

A systematic manual and electronic review was performed by means of searches carried out in the PubMed, LILACS, CINAHL and Embase databases until December 2019, using the following descriptor: (sexual) or (sexualidade) or (sexuais) or (sexualidades) or (sexualidades) or (sexualidades) or (sexualite) or (sexualidades) or (sexuality) or (sexualidades) or (sexualidad) or (sexually) or (coitus) or (coito) or (sexualidad) AND (satisfação) or (qualidade de vida) or (calidad de vida) or (quality of life) AND (index) or (escala) or (validação) or (questionário) or (validation) or (validación) or (validade) or (validez) or (validity) or (scale) or (questionnaires) or (cuestionarios) or (avaliação) or (teste) or (measurement) or (dimension) or (medição) or (questionnarie) or (cuestionario).

Results were exported to EndNote® X7 software and duplicate articles were excluded. The remaining studies were reviewed by two independent researchers in a first analysis, based on information provided by title, abstract and keywords, and, subsequently, by reading the article in full. When disagreements among reviewers occurred, a third reviewer was asked for consensus.

Studies were considered eligible if they met the following inclusion criteria: (1) reported the use of a questionnaire to assess the sexual function of Brazilian women; (2) translated and validated a questionnaire into Brazilian Portuguese to assess sexual function; (3) tested the measurement properties of a questionnaire to assess female sexual function, developed, translated or adapted to Brazilian Portuguese; (4) were in full article format; and (5) were published in peer-reviewed journals. Texts from theses or dissertations, conference abstracts and books, used with other populations and

methods, and questionnaires or scales that assessed issues related to sexual behavior were excluded.

For each study included, data describing the translation and cross-cultural adaptation procedures according to the Guidelines for Translation and Cross-Cultural Adaptation of Questionnaires^{14,16} were extracted. To assess the measurement properties, we collected data on internal consistency, construct validity, reproducibility (reliability and agreement), responsiveness, and ceiling and floor effects. This systematic review did not evaluate face validity (or content validity), interpretability and criterion validity properties, as evaluating face validity and interpretability properties is relevant only during the development of a method in its original language.

To determine the methodological quality of the translation and cross-cultural adaptation processes of the included studies, after data extraction, all studies were classified according to the Guidelines for Cross-Cultural Adaptation of Questionnaires¹⁴ (Chart 1) and verified according to the COSMIN¹⁵ checklist. For each item evaluated - translation, synthesis, back-translation, review and pre-test -, the studies were classified as follows: Positive (+): if the evaluated procedure was performed adequately according to the aforementioned guidelines; Doubtful (?): if the evaluated procedure was performed questionably; Negative (-): if the evaluated procedure was not performed adequately according to the aforesaid guidelines; Null (0): when information about the evaluated procedure was insufficient to be verified regarding its methodological quality. The measurement properties analyzed were internal consistency, reliability, measurement error, agreement, construct validity, hypothesis test, cross-cultural adaptation validity, validation and responsiveness (Chart 2).

Chart 1. Guidelines proposed by Beaton et al.14 to assess the cross-cultural adaptation process of questionnaires

Phase	Execution	Quality
1) Translation	Two or more independent translators must translate the method. Preferably, the translators should be native speakers of the target language.	O There is no information about the translation; + Translation performed by two or more independent translators; - Translation performed by a single translator; ? Questionable translation process.
2) Synthesis of the translations	Translators must synthesize translations and generate a consensus translation.	O There is no information on the synthesis or the translation was performed by only one translator; + Synthesis performed by two or more translators; ? Questionable synthesis process.
3) Back-translation	Two or more independent translators who are not aware of the original method must translate the consensus translation back to its source language.	O There is no information on back-translation. + Back-translation performed by two or more independent translators; - Back-translation performed by a single translator; ? Questionable back-translation process.
4) Review committee	An expert committee should review the method versions and develop the pre-final version of the method.	O There is no information about the expert committee; + Clearly reported expert committee; ? Questionable committee review process.
5) Pre-test of the pre-final version	Pre-final version must be tested on members of the target population.	+ Pre-test performed. ? Doubtful design. O There is no information about the pre-test.

^{+:} positive rating; -: negative rating; 0: null rating; ?: dubious classification.

Chart 2. Measurement properties according to the COSMIN¹⁵ checklist

Measurement property	Concept
Internal consistency	Homogeneity measure of a method's (sub)scale. It indicates the degree to which (sub)scale items are related to each other, and assesses whether they verify the same construct. Factor analysis must be applied to determine whether the (sub)scale items form a single dimension.
Reliability	Evaluates the extent to which participants can be differentiated from each other, despite measurement errors (relative error).
Measurement error	Assesses data measurement error and how it is reported in the study.

(continues)

Chart 2. Continuation

Measurement property	Concept
Agreement	Measures how close two or more repeated measures are to each other (absolute error).
Construct validity	Checks the extent to which the method score relates to other similar methods according to specific predefined correlation hypotheses.
Hypothesis testing	Assess whether the hypothesis and its correlations have been tested.
Cross-cultural adaptation validity	Assesses the cross-cultural adaptation process and if the expected steps were followed.
Validation criterion	Evaluates losses and if there was comparison with a standard "gold" scale.
Responsiveness	Ability of the method to detect clinical changes over time.

The measurement properties were evaluated using the COSMIN checklist. Properties were grouped into reproducibility (internal consistency plus structural validity and measurement error), responsiveness and construct validity (reliability, structural validity, hypothesis testing, cross-cultural adaptation validity and validation criterion).

RESULTS

The database searches resulted in 46,987 articles, following the selection process depicted in the flowchart (Figure 1), proposed by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)¹⁷.

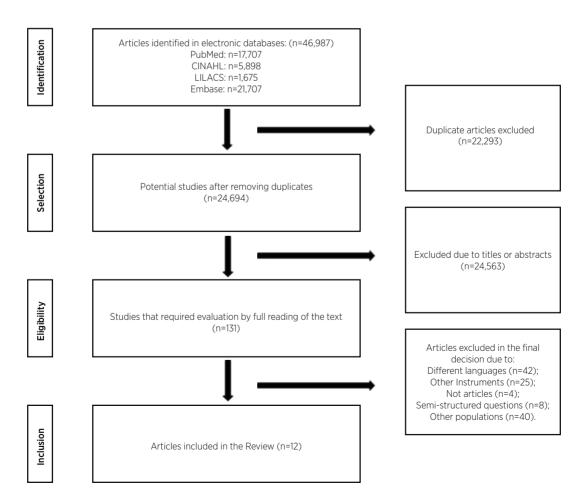


Figure 1. Flowchart of the article selection for review

Of the papers analyzed, only 12 articles and seven instruments met the eligibility criteria, and one of the instruments had its translation and validation published separately^{18,19}. The listed instruments were: the Female Sexual Function Index (FSFI)¹⁸⁻²³, Pregnancy And Sexual Function Questionnaire (PSFQ)⁹, *Quociente Sexual – Versão Feminina* (QS-F)²⁴, Sexual Satisfaction Scale For Women (SSS-W)²⁵, Pelvic Organ Prolapse/ Urinary Incontinence Sexual Questionnaire (PISQ-12)²⁶, Scale For Quality Of Sexual Function (QSF)²⁷ and *Função Sexual Feminina após Menopausa* (FSFM)²⁸.

The FSFI¹⁸⁻²³ questionnaire has five cross-cultural adaptations into Brazilian Portuguese, as it considers populations with specific characteristics, such as pregnant women, patients in urogynecological care sectors, and university students. Table 1 summarizes the description of the population in which each questionnaire tested the measurement properties in Brazil. We noticed a variation in the population, with most being women at different stages of the life cycle, which can influence the response of the female sexual cycle²⁹.

Table 1. Instruments and methodological description of validation

Method	Summary
PSFQ	The instrument assesses changes in sexual function during pregnancy, comprising 27 questions that relate the general idea of sex during pregnancy, body perception, the couple's intimate life, frequency of sexual intercourse, sexual desire and satisfaction, vaginal lubrication and dyspareunia. A pre-test was carried out with 30 pregnant women. The test and retest was performed with 100 pregnant women in the last trimester of pregnancy.
FSFI	The instrument consists of 19 questions divided into six domains of sexual function (desire, arousal, lubrication, orgasm, satisfaction and pain), with a score ranging from 2 to 36. The higher the score, the better the sexual function. One hundred women from the urology service were evaluated.
FSFI	The instrument consists of 19 questions divided into six domains of sexual function (desire, arousal, lubrication, orgasm, satisfaction and pain), with a score ranging from 2 to 36. The higher the score, the better the sexual function. Tested on women who voluntarily underwent surgical sterilization, systematically selecting 235 cases.
FSFI	The instrument consists of 19 questions divided into six domains of sexual function (desire, arousal, lubrication, orgasm, satisfaction and pain), with a score ranging from 2 to 36. The higher the score, the better the sexual function. A total of 215 women who spontaneously sought the service and were in a stable relationship were evaluated.
FSFI-pregnant	The instrument consists of 19 questions divided into six domains of sexual function (desire, arousal, lubrication, orgasm, satisfaction and pain), with a score ranging from 2 to 36. The higher the score, the better the sexual function. A total of 92 normal pregnant women were evaluated, 60 of whom participated in the cross-cultural adaptation phase and 32 in the testing and retesting of the instrument.
QS-F	It assesses the stages of sexual activity (desire, arousal, orgasm and their psychophysical correlates) using a 5-point scale with 10 questions; the higher the score, the better the sexual function. It was validated in a pre-test with 30 women with sexual dysfunction and, later, with 30 women without diagnosed sexual dysfunction, found by random searches of the institution's medical records.
SSS-W	Scale comprising 30 items that assess: personal sexual satisfaction, communication, compatibility, relational concerns, discomfort over sexual interpersonal relationship concerns, and personal concerns. Possible answers were given on a five-point Likert scale. The instrument was tested on a sample of 20 women.
PISQ-12	A pre-test was carried out with 25 women from the urogynecology and vaginal surgery clinic. Sixty-four women with urinary complaints and 68 women without urinary complaints participated in the final validation. The instrument has 12 questions divided into three domains: emotional-behavioral, physical and relationship. Answers are graded on a Likert scale, ranging from always, often, sometimes, rarely, and never, with scores from 0 to 48 points. The greater the score, the worse the sexual function.
QSF	Sexual function quality scale (all genders), with 40 questions. The proposal was a cross-cultural adaptation, but there was no testing of measurement properties, only one test with 18 people.
FSFM	The instrument assesses sexual dysfunction. It included nine domains, in which each item included was adapted according to the Likert scale. Participated in the pre-test 251 women and in the validation 196 women, with a mean age of 54 years, 2 to 15 years after natural menopause, treated at a gynecology outpatient clinic. The lower the score, the better the sexual function.
FSFI Online version	Instrument tested by online application, consisting of six domains, adapted and validated for Brazilian Portuguese by Hentschel et al. ²¹ It was tested in 273 women, with a re-test in 15 days.

PSFQ: Pregnancy and Sexual Function Questionnaire; FSFI: Female Sexual Function Index; QS-F: Quociente Sexual – Versão Feminina; SSS-W: Sexual Satisfaction Scale for Women; PISQ-12: Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire-12; QSF: Scale for Quality of Sexual Function; FSFM: Função Sexual Feminina após Menopausa.

Table 2 presents the evaluations of the translations and cross-cultural adaptations according to the translation guidelines and the Guidelines for the Cross-cultural Adaptation of Questionnaires¹⁴, showing that four of the questionnaires were developed in Brazil. We also noted that five studies proposed more cross-cultural adaptation

tests while others were unconcerned with all the validation steps. The FSFI instrument had five different validations, one of which was a specific adaptation for the pregnant population and another for an online version. Table 3 shows the evaluations of the measurement properties carried out according to COSMIN¹⁵.

Table 2. Analysis of the translation and cross-cultural adaptation procedures of observational methods according to the Guidelines for the Cross-Cultural Adaptation Process of Questionnaires¹

Method	Translation	Synthesis	Back-translation	Review committee	Pre-test
PSFQ	+	+	+	+	+
FSFI	+	?	+	+	+
FSFI	+	+	+	+	+
FSFI	+	+	-	+	-
FSFI-pregnant	+	+	-	+	+
SSS-W	+	-	-	+	-
PISQ-12	+	+	+	+	+
QSF	+	+	+	-	+
FSFM	+	+	+	-	-
QS-F	Not applicable - instrun	nent developed in Brazi	ilian Portuguese		
FSFI Online version	Not applicable – study (used the FSFM instrume	ent cross-culturally adapte	ed into Brazilian Portuguese	e by Hentschel et al. ²¹

^{+:} positive rating; -: negative rating; 0: null rating; ?: doubtful classification: N/A: not applicable; PSFQ: Pregnancy and Sexual Function Questionnaire; FSFI: Female Sexual Function Index; QS-F: Quociente Sexual - Versão Feminina; SSS-W: Sexual Satisfaction Scale for Women; PISQ-12: Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire-12; QSF: Scale for Quality of Sexual Function; FSFM: Função Sexual Feminina após Menopausa.

Table 3. Analysis of measurement properties according to the *Consensus-based Standards for the Selection of Health Measurement Instruments* (COSMIN)^{1*}

Instrument	General response requirements	Internal consistency	Reliability	Measurement error	Agreement	Structural validity	Hypothesis testing	Cross-cultural adaptation validity	Validation criterion	Responsiveness	Overall mean of results	Average of the variables related to the reproducibility of the instrument	Mean of the variables related to the validity of the instrument	Instrument responsiveness
2050	4/4	10/10	12/13	9/11	5/5	6/6	3/10	14/14	3/6	7/17	73/96	24/26	38/49	7/17
PSFQ	100%	100%	87%	72%	100%	100%	30%	100%	46%	40%	77.4% Excellent	90% Excellent	72% Excellent	40% Weak
FCFI	3/4	8/10	9/13	9/11	4/5	4/6	6/10	12/14	3/6	12/17	70/96	21/26	34/49	12/17
FSFI	80%	75%	77%	72%	71%	75%	78%	67%	50%	79%	72% Good	72% Good	69% Good	79% Excellent
F0F1	3/4	8/10	5/13	5/11	2/5	4/6	2/10	12/14	2/6	2/17	58/96	15/26	25/49	2/17
FSFI	80%	82%	40%	41%	35%	66%	21%	89%	50%	14%	51% Good	52% Good	53% Weak	14% Poor
F0F1	4/4	7/10	3/13	1/11	1/5	3/6	1/10	7/14	1/6	1/17	29/96	9/26	15/49	1/17
FSFI	75%	78%	40%	13%	27%	50%	13%	43%	14%	7%	36% Weak	39% Weak	32% Weak	7% Poor
FSFI- pregnant	3/4	3/10	8/13	6/11	2/5	2/6	4/10	10/14	3/6	13/17	54/96	11/26	27/49	13/17
	80%	39%	62%	63%	57%	58%	47%	83%	53%	81%	62% Good	53% Good	60% Good	81% Excellent

(continues)

Table 3. Continuation

Instrument	General response requirements	Internal consistency	Reliability	Measurement error	Agreement	Structural validity	Hypothesis testing	Cross-cultural adaptation validity	Validation criterion	Responsiveness	Overall mean of results	Average of the variables related to the reproducibility of the instrument	Mean of the variables related to the validity of the instrument	Instrument responsiveness
00.5	1/4	1/10	1/13	0/11	0/5	0/6	0/10	ot cable	0/6	0/17	3/82	1/26	1/35	0/17
QS-F	20%	25%	8%	16%	7%	16%	0%	Not applicable	15%	6%	12% Poor	16% Poor	9% Poor	6% Poor
ccc w	1/4	0/10	0/13	0/11	0/5	0/6	0/10	1/14	0/6	0/17	2/96	0/26	1/49	0/17
SSS-W	20%	9%	0%	0%	0%	0%	0%	18%	0%	0%	5% Poor	0% Poor	3.6% Poor	0% Poor
DICO 12	3/4	6/10	11/13	9/11	4/5	3/6	8/10	9/14	4/6	14/17	71/82	19/26	35/49	14/17
PISQ-12	80%	67%	91%	86%	85%	66%	86%	64%	84%	84%	80% Excellent	79% Excellent	78% Excellent	84% Excellent
QSF	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	5/14 35%	Not applicable	Not applicable	5/96 3.5% Poor	Not applicable	5/49 7% Poor	Not applicable
====	3/4	4/10	4/13	2/8	4/5	3/6	7/10	12/14	4/6	11/17	54/96	10/26	30/49	11/17
FSFM	80%	54%	28%	26%	92%	75%	78%	81%	80%	64%	65% Good	57% (Good)	68% (Good)	64% Good
FSFI	4/4	9/10	11/13	9/11	5/5	5/6	8/10	ot cable	5/6	16/17	72/82	23/26	29/35	16/17
	100%	96%	94%	93%	100%	91%	91%	Not applicable	96%	97%	95% Excellent	96% Excellent	93% Excellent	97% Excellent

PSFQ: Pregnancy and Sexual Function Questionnaire; FSFI: Female Sexual Function Index; QS-F: Quociente Sexual - Versão Feminina; SSS-W: Sexual Satisfaction Scale for Women; PISQ-12: Pelvic Organ Prolapse/Urinary Incontinence Sexualquestionnaire-12; QSF: Scale for Quality of Sexual Feminina após Menopausa.

DISCUSSION

Our results show show that only three – PSFQ⁹, FSFI²³, PISQ-12²⁶– of the seven instruments available for assessing female sexual function were properly translated¹⁴ and presented good psychometric properties¹⁵ of their Brazilian versions. Considering that instruments capable of identifying and quantifying sexual function in women are increasingly used in clinical practice and in scientific research, and given the growing concern with aspects related to sexual function, demands for instruments that facilitate detecting dysfunctions has increased²⁴ and consequently so did the need for valid, reproducible and reliable instruments.

The FSFI¹⁸⁻²³ instrument was the most evaluated, having been validated by five authors for use in different populations, such as women after surgical sterilization^{18,19}, women attended at gynecology services^{20,21}, pregnant women²² and physiotherapy students²³ for its online version. This implies the proper selection of instruments,

considering not only the quality of the instrument and its translation, such as sensitivity and specificity, but also characteristics of the evaluated population. Still, regarding the difference in target population, we noted that two validations were carried out for the pregnant population^{9,25}: one for women in menopause²⁸ and one for a mixed population (men and women)²⁷. Regarding measurement properties, none of the instruments covered all the steps proposed by Terwee et al. 15,30. The translation and cross-cultural adaptation process was carried out for all instruments following Beaton et al.14, and internal consistency was the second most tested property. Pereira et al.'s study²⁷ only performed the cross-cultural adaptation and could not be analyzed in the other measurement properties, meaning that the instrument was considered to be of low methodological quality.

Only three studies were classified as excellent in the overall score analysis: PISQ-12²⁶, PSFQ⁹, and FSFI²³ – the latter using the questionnaire validated by Hentschel et al.²¹, who had a low score on the cross-cultural adaptation

item. The study by Latorre et al.²³, however, brings a novelty to the validation process by using online data collection.

We found studies with methodological quality classified as poor and weak – FSFI²¹, QS-F²⁴, SSS-W²⁵, QSF²⁷ -, which suggests the need to carry out new instrument validation processes. Moreover, these flaws make it imperative that other researchers observe the necessary steps and conduct their studies using a good methodological description, in both the cross-cultural adaptation process and evaluation of measurement properties, and the transparency of the report, which contributes to better reproducibility, validity, and responsiveness of the measurement instrument used to assess female sexual function, whether in scientific research or in clinical practice. It is also necessary that, to develop new instruments, when formulating the items, the target population and its specific characteristics that differentiate it from the general population, be considered, thus making the instrument suitable for detecting possible female sexual dysfunctions.

This study has some limitations. Despite the systematic use of selected terms, some studies may not have been captured, as some Brazilian journals may not be indexed in any of the databases used or may be indexed in Latin American databases that do not have a search system as sensitive as those in North American databases. Other words may also have been used, but were not found because they were not included in the descriptors, interfering with the search sensitivity³¹.

This study listed the questionnaires for assessing female sexual function validated for Brazilian Portuguese and showed that there is a need to improve the translation and cross-cultural adaptation process, and psychometric properties of these questionnaires for use in the Brazilian population. For an instrument to be used in clinical practice and research, it must be valid and reliable, so that its results reflect what the original instrument proposes. As such, the article highlights the need for further studies with adequate methodological designs, to carry out translations and validations of instruments for assessing female sexual function.

CONCLUSION

We found seven instruments for assessing female sexual function, but only three validations were considered good regarding the assessment of their psychometric properties. Thus, there is a need to improve the validated versions of sexual dysfunction detection instruments for the female population throughout their entire life cycle.

REFERENCES

- Ferreira DQ, Nakamura MU, Souza E, Mariani Neto C, Ribeiro MC, Santana TGM, et al. Função sexual e qualidade de vida em gestantes de baixo risco. Rev Bras Ginecol Obstet. 2012;34(9):409-13. doi: 10.1590/S0100-72032012000900004.
- Ribeiro MC, Nakamura MU, Abdo CHN, Torloni MR, Scanavino MT, Mattar R. Gravidez e diabetes gestacional: uma combinação prejudicial à função sexual feminina? Rev Bras Ginecol Obstet. 2011;33(5):219-24. doi: 10.1590/S0100-72032011000500003.
- Silva BM, Rêgo LM, Galvão MA, Florêncio TMMT, Cavalcante JC. Incidência de disfunção sexual em pacientes com obesidade e sobrepeso. Rev Col Bras Cir. 2013;40(3):196-202. doi: 10.1590/ S0100-69912013000300006.
- Maasoumi R, Lamyian M, Montazeri A, Azin SA, Aguilar-Vafaie ME, Hajizadeh E. The sexual quality of life-female (SQOL-F) questionnaire: translation and psychometric properties of the Iranian version. Reprod Health. 2013;10(1):25. doi: 10.1186/1742-4755-10-25.
- Slaski S, Stefankiewicz M. Psychometric validation of the sexual function questionnaire in Poland. Sex Disabil. 2012;30(1):103-8. doi: 10.1007/s11195-011-9231-7.
- Silva GMD, Lima SMRR, Moraes JC. Avaliação da função sexual em mulheres após a menopausa portadoras de síndrome metabólica. Rev Bras Ginecol Obstet. 2013;35(7):301-8. doi: 10.1590/S0100-72032013000700004.
- Cavalcanti IF, Farias PN, Ithamar L, Silva VM, Lemos A. Função sexual e fatores associados à disfunção sexual em mulheres no climatério. Rev Bras Ginecol Obstet. 2014;36(11):497-502. doi: 10.1590/S0100-720320140004985.
- 8. Inan C, Agir MC, Sagir FG, Özer A, Özbek Ö, Dayanır H, et al. Assessment of the effects of perineoplasty on female sexual function. Balkan Med J. 2015;32(3):260-5. doi: 10.5152/balkanmedj.2015.15073.
- 9. Amaral TLM, Monteiro GTR. Tradução e validação de questionário de função sexual na gravidez (PSFQ). Rev Bras Ginecol Obstet. 2014;36(3):131-8. doi: 10.1590/S0100-72032014000300007.
- Sharma JB, Kalra B. Female sexual dysfunction: assessment. J Pak Med Assoc. 2016;66(5):623-6.
- 11. Frank JE, Mistretta P, Will J. Diagnosis and treatment of female sexual dysfunction. Am Fam Physician. 2008;77(5):635-42.
- 12. Costa RF, Machado SC, Cordás TA. Imagem corporal e comportamento sexual de mulheres obesas com e sem transtorno da compulsão alimentar periódica. Arch Clin Psychiatry. 2010;37(1):27-31. doi: 10.1590/S0101-60832010000100006.
- 13. Del Giorno C, Fonseca AM, Bagnoli VR, Assis JS, Soares JM Jr, Baracat EC. Efeitos do Trifolium pratense nos sintomas climatéricos e sexuais na pós-menopausa. Rev Assoc Med Bras. 2010;56(5):558-62. doi: 10.1590/S0104-42302010000500017.

- 14. Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. Spine (Phila Pa 1976). 2000;25(24):3186-91. doi: 10.1097/00007632-200012150-00014.
- 15. Terwee CB, Mokkink LB, Knol DL, Ostelo RWJG, Bouter LM, de Vet HCW. Rating the methodological quality in systematic reviews of studies on measurement properties: a scoring system for the COSMIN checklist. Qual Life Res. 2012;21(4):651-7. doi: 10.1007/s11136-011-9960-1.
- Lamarão AM, Costa LCM, Compera MLC, Padula RS. Observational methods for biomechanical risk assessment in workers: a systematic review. Fisioter Mov. 2017;30(2):379-89. doi: 10.1590/1980-5918.030.002.ar01.
- 17. Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015;349:g7647. doi: 10.1136/bmj.g7647.
- Pacagnella RC, Vieira EM, Rodrigues OM Jr, Souza C. Adaptação transcultural do Female Sexual Function Index. Cad Saude Publica. 2008;24(2):416-26. doi: 10.1590/ S0102-311X2008000200021.
- Pacagnella RC, Martinez EZ, Vieira EM. Validade de construto de uma versão em português do Female Sexual Function Index. Cad Saude Publica. 2009;25(11):2333-44. doi: 10.1590/ S0102-311X2009001100004.
- Thiel RRC, Dambros M, Palma PCR, Thiel M, Riccetto CLZ, Ramos MF. Tradução para português, adaptação cultural e validação do Female Sexual Function Index. Rev Bras Ginecol Obstet. 2008;30(10):504-10. doi: 10.1590/S0100-72032008001000005.
- 21. Hentschel H, Alberton DL, Capp E, Goldim JR, Passos EP. Validação do female sexual function index (FSFI) para uso em língua portuguesa. Rev HCPA & Fac Med Univ Fed Rio Gd do Sul. 2007;27(1):10-4.
- 22. Leite APL, Moura EA, Campos AAS, Mattar R, Souza E, Camano L. Validação do índice da função sexual feminina em grávidas brasileiras. Rev Bras Ginecol Obstet. 2007;29(8):396-401. doi: 10.1590/S0100-72032007000800003.

- 23. Latorre GFS, Bilck PA, Cardoso FL, Sperandio FF. Validade e confiabilidade de uma versão on-line do Female Sexual Function Index por teste e reteste. Rev Bras Ginecol Obstet. 2013;35(10):469-74. doi: 10.1590/S0100-72032013001000008.
- 24. Abdo CHN. Elaboração e validação do quociente sexual versão feminina: uma escala para avaliar a função sexual da mulher. RBM Rev Bras Med. 2006;63(9):477-82.
- 25. Catão E, Rodrigues OM Jr, Viviani DH, Finotelli I Jr, Silva FRCS. Escala de satisfação sexual para mulheres: tradução, adaptação em estudo preliminar com amostra clínica. Bol Psicol. 2010;60(133):181-90.
- 26. Santana GWRM, Aoki T, Auge APF. The Portuguese validation of the short form of the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-12). Int Urogynecol J. 2012;23(1):117-21. doi: 10.1007/s00192-011-1505-1.
- 27. Pereira VM, Silva ACO, Nardi AE, Heinemann LAJ. Tradução e adaptação transcultural para o português brasileiro da Scale for Quality of Sexual Function (QSF). Rev Psiquiatr Rio Gd Sul. 2011;33(2):87-97. doi: 10.1590/S0101-81082011000200005.
- 28. Borges VLF, Medeiros SF. Validação de questionário para avaliar a função sexual feminina após menopausa. Rev Bras Ginecol Obstet. 2009;31(6):293-9. doi: 10.1590/S0100-72032009000600005.
- 29. Melo AS, Carvalho EC, Haas VJ. Defining characteristics, validated by specialists and manifested by patients: a study of the sexual dysfunction and ineffective sexuality pattern diagnoses. Rev Lat Am Enfermagem. 2008;16(6):951-8. doi: 10.1590/S0104-11692008000600003.
- 30. Terwee CB, Bot SDM, de Boer MR, van der Windt DA, Knol DL, Dekker J, et al. Quality criteria were proposed for measurement properties of health status questionnaires. J Clin Epidemiol. 2007;60(1):34-42. doi: 10.1016/j.jclinepi.2006.03.012.
- 31. Meston C, Trapnell P. Original research outcomes assessment: development and validation of a five-factor sexual satisfaction and distress scale for women: the Sexual Satisfaction Scale for Women (SSS-W). J Sex Med. 2005;2(1):66-81. doi: 10.1111/j.1743-6109.2005.20107.x.