UC Irvine

UC Irvine Previously Published Works

Title

Arabic validation of the Pelvic Organ Prolapse/Incontinence Sexual Questionnaire, IUGA-Revised (PISQ-IR)

Permalink

https://escholarship.org/uc/item/4q02r3kg

Journal

International Urogynecology Journal and Pelvic Floor Dysfunction, 26(8)

ISSN

0937-3462

Authors

El-Azab, AS Ghoniem, GM Leu, SY et al.

Publication Date

2015-08-28

DOI

10.1007/s00192-015-2678-9

Peer reviewed

ORIGINAL ARTICLE

Arabic validation of the Pelvic Organ Prolapse/Incontinence Sexual Questionnaire, IUGA-Revised (PISQ-IR)

Ahmed S. El-Azab · Gamal M. Ghoniem · Szu-Yun Leu · Danh V. Nguyen

Received: 16 September 2014 / Accepted: 24 February 2015 / Published online: 24 March 2015 © The International Urogynecological Association 2015

Abstract

Introduction and hypothesis Our aim was to translate then assess the reliability of the culturally adapted Pelvic Organ Prolapse/Incontinence Sexual Function Questionnaire, International Urogynecological Association (IUGA)-Revised (PISQ-IR) to assess sexual health among Arabic-speaking women with pelvic floor disorders.

Methods PISQ-IR was modified to consider cultural characteristics of the Middle East. The final reliability study included 172 women with urinary incontinence (UI) and/or pelvic organ prolapse (POP). Participants completed the questionnaire twice: at enrollment and 2 weeks later.

Results Among sexually active women, good internal consistency was observed for five of the six scales in the adapted instrument: Global Quality (Cronbach's coefficient α =0.86),

A. S. El-Azab

Section of Female Urology and NeuroUrology, Asyut University Urology Hospital, Asyut 71516, Egypt

G. M. Ghoniem

Department of Urology, UC Irvine School of Medicine, Orange, CA 92868, USA

S.-Y. Leu · D. V. Nguyen

Institute for Clinical and Translational Science, University of California, Irvine, CA 92687, USA

S.-Y. Leu

Department of Pediatrics, UC Irvine School of Medicine, Orange, CA 92868, USA

D. V. Nguyen

Department of Medicine, UC Irvine School of Medicine, Orange, CA 92868, USA

G. M. Ghoniem (\subseteq)

Chief Division of Female Urology, Pelvic Reconstruction Surgery & Voiding Dysfunction, University of California, Irvine, 333 City Blvd. West, Ste 2100, Orange, CA 92868, USA e-mail: gghoniem@uci.edu

Condition Impact (α =0.87), Desire (α =0.82), Condition Specific (α =0.74), and Partner Related (α =0.75). Internal consistency was acceptable for the Arousal Orgasm subscale (α =0.66). However, among not sexually active women, internal consistency was poor (α <0.6) for all four scales. Lin's concordance correlation coefficient measuring agreement between test and retest measurements [Lin's concordance correlation coefficient (CCC); a value of 1 represents perfect agreement] ranged from 0.81 to 0.87 for the not sexually active scales, except for condition impact (CCC=0.63.) For sexually active women, CCC was typically stronger, ranging from 0.85 to 0.96.

Conclusions PISQ-IR questionnaire is easy to administer and reliable for assessing sexual function in sexually active Arabic women with POP and UI, but internal consistency is poor for Arabic women not sexually active.

Keywords Questionnaire · Quality of life · Prolapse · Sexual dysfunction · Urinary incontinence · Fecal incontinence

Abbreviations

FSD Female sexual dysfunction POP Pelvic organ prolapse QoL Quality of life

PISQ-IR Pelvic Organ Prolapse Incontinence Sexual

Function Questionnaire, IUGA-Revised

IUGA International Urogynecological Association

UI Urinary incontinence SA Sexually active NSA Not sexually active

CCC Concordance Correlation Coefficient

Introduction

The Middle East in general and the Egyptian culture specifically are known for their conservative attitude toward sexual



issues, especially for women. Sexual education is not yet allowed in any form. Awareness of available methods for treatment of female sexual dysfunction (FSD) is limited. Availability of treatment for certain problems is still a challenge. Even in well-trained physicians, there is considerable deficiency in adequate knowledge to treat FSD. FSD seems to be a hidden but a major problem in the Middle East, and a study that assessed 1,000 married women showed that the prevalence of FSD is high, approaching 70 % among the studied sample [1]. One study estimated the prevalence of urinary incontinence (UI) in Egypt to be as high as 55 % [2]. Data on the prevalence of genital prolapse are limited. Pelvic organ prolapse (POP) in Egypt tends to occur at earlier ages due to high parity rate and early age at marriage [3]. Data suggest higher rates of sexual dysfunction among women with pelvic floor disorders (PFD), including POP and UI [4].

To be used in clinical or research practice, a questionnaire must demonstrate three important psychometric characteristics: validity, reliability, and responsiveness (change with treatment). A questionnaire that is valid and reliable for a particular language and culture may not prove so when used in a different population. Two important questionnaires have been introduced into clinical practice to evaluate female sexual dysfunction: the Female Sexual Function Index (FSFI), and the McCoy Female Sexuality Questionnaire (MFSQ). Both are designed to evaluate sexual function in a general population and not specifically in women with PFD. Though they are simple, easy to understand, reliable, and valid, they do not address the unique sexual problems associated with POP and how it affects quality of life (OoL). The only condition-specific questionnaire to assess sexual function in women with POP or UI is the Pelvic Organ Prolapse and Incontinence Sexual Function Questionnaire (PISQ). The International Urogynecological Association (IUGA) Sexual Function Group revised and modified the original short version of the questionnaire PISQ-12 (PISQ-IR i.e., IUGA-Revised) with the aim to develop a condition-specific instrument intended for international use and to assess sexual function in women who are both sexually and not sexually active, as well as women with fecal incontinence (FI). In addition, the PISQ-IR was developed to evaluate women without a partner and those who do not consider themselves to be sexually active. The PISQ-IR also assesses the impact of the partner on a woman's sexual function [5]. The questionnaire is sensitive to the unique aspects of FPFD on sexual function and how it affects the life of the patient. The PISQ-IR is a valid and reliable questionnaire and contains 20 items that assess six domains: desire, arousal, orgasm, pain, partner, and condition impact (POP/UI) [6]. Translation and adaptation of this instrument for Arabic-speaking women will enable us to collect data about an important and underrecognized condition in this population, especially because of cultural norms that discourage discussion of these issues. The aim of this study was to translate and adapt the PISQ-IR questionnaire and assess its reliability to evaluate sexual health among Arabic-speaking women with PFD.

Materials and methods

The study was approved by the Ethical Committee of the University at the Asyut University Urology Hospital, Asyut, Egypt.

PISQ-IR: description and adaptation

The PISQ-IR, a valid and reliable questionnaire and contains 20 items, is intended to be self-administered. If the woman cannot read, the research nurse (RN) provides nondirective assistance. The questionnaire is divided into two major parts: the first part (Q2–6) is directed to women who are not sexually active (NSA) and the second (Q7–20) to those who are sexually active (SA). The SA part consists of six subscales:

- 1. Arousal/orgasm: four items (Q7, 8a, 10, 11)
- 2. Partner-related issues: three items (Q13, 14a, 14b)
- 3. Condition-specific issues: three items (Q8a, 8b, 9)
- 4. Global quality: four items (Q19a, 19b, 19c, 20a)
- 5. Condition impact: four items (Q18, 20b, 20c, 20d)
- 6. Desire: three items (Q15, 16, 17)

The sexually inactive part consists of four domains:

- 1. Partner-related
- 2. Condition specific
- 3. Global quality
- 4. Condition impact [6]

Cultural adaptation

In the adaptation process, it was important to keep in mind the cultural norms among Arabic-speaking women and thus necessary to modify some items from the original questionnaire. All questions specified sex to be practiced with the husband only. For Q3, the phrase "bulging in the vagina (either the bladder, rectum or uterus...." were not understood by our patients and were replaced by the term vaginal prolapse. Q12 was modified to inquire about the date of marriage, as it would be culturally unacceptable to ask a woman if she has a partner.

Linguistic validation

The aim was to translate the questionnaire into clear, easy to understand, and conceptually equivalent to the original



version [7]. This was accomplished in two steps: forward translations and backward translation. The first consists of translating the questionnaire into Arabic (target), which was done by translators who are native Egyptian language speakers and bilingual in the English language, thus producing two translations of the questionnaire into Arabic. The study coordinator then discussed the translations with each translator and all agreed on one version. That version was then sent to the IUGA Research and Development (R&D) Committee and IUGA Sexual Function Group for final notes to produce first version (V1).

Focus group (cognitive interview)

The questionnaire was administered to a group of patients with POP, FI, and/or UI attending the outpatient Female Urology Clinic. The purpose was to discuss each individual item in the questionnaire to make sure that each question conveys the intent and meaning of this question to participants. The interview assessed whether the language used was simple and appropriate. These interviews were conducted both in one-on-one sessions (one patient only) and small focus groups (two to four patients in each session) and comprised eight women with POP and/or UI. During the interviews, the questionnaire was reported by all women to be easy to understand and unambiguous. After that, the final wordings were established for each question in the instrument and a pooled version of the questionnaire was completed (V2).

Back-translation

The V2 version of the questionnaire was translated back into English. This back-translation was not done by the original translators but by another, independent, translator. As recommended by the IUGA, the final translation and the back-translation into English were submitted to the IUGA Translation Working Group for review and comparison of the backward version with the original questionnaire.

Validation study

The questionnaire was administered to a group of women with UI and/or POP symptoms to assess each the performance of each item (internal consistency) and test–retest reliability. Construct validity was assessed during development of the original questionnaire and was not assessed in this study. Women attending the Female Urology Outpatient Clinic, Asyut University Urology Hospital, complaining of POP and/or UI were invited to participate. This is the biggest tertiary referral center in upper Egypt and receives patients of

different socioeconomic and educational levels. After explaining the nature of the study, we obtained informed consent; the questionnaire is intended to be self-administered. The RN provided unassisted guidance to those who could not read or write. As women in the Middle East are embarrassed to disclose sensitive information about their sexual relationships, they may feel more comfortable with a female RN. Evaluation included complete history and physical examination, including POP-Q staging. Women with vulvodynia, painful bladder syndrome, chronic pelvic pain, and neurological deficit were excluded. Women were then asked to come back to the clinic after 2 weeks to complete the questionnaire again in order to assess questionnaire stability over time.

Statistical analysis

PISQ-IR scale scoring for SA and NSA patients were calculated using transformed sum (scored as 0-100), and the scale was set to missing if > 50 % of items was not answered, as recommend by Rogers et al. [6] Thus, one missing was allowed for scales with two or three items, and two missing were allowed for scales with four items. The missing pattern of each item in the questionnaire was examined. Internal consistency is a measure of how well items in the same scale correlate with each other as an indicator of whether these items are measuring a similar concept, and the standardized Cronbach's coefficient α was calculated [8]. Patients who completed the questionnaire twice, at baseline and again after 2 weeks, were used for assessing test-retest reliability. The difference between test and retest surveys in the NSA and SA scales was first calculated, and the paired t test was performed to identify significant difference between these repeated scores. The family-wise error rate adjustment for multiple comparisons, based on Hochberg's method, was used Further, Lin's concordance correlation coefficient (CCC), which ranges ranges from -1 to 1 with a value of 1 representing complete agreement, was calculated [9]. As a second measure of absolute/apparent reliability, we considered whether absolute differences between test and retest were > 10 %. We set a priori (before data analysis) that differences between test and retest of no more than 10 % would be additional evidence of reliability, augmenting information provided by the concordance coefficient. Analyses were performed using SAS 9.3 (Cary, NC, USA).

Results

The final version of the questionnaire was administered to 172 patients (30 NSA and 142 SA). The basic characteristics of study participants are summarized in Table 1. Predominantly,



 Table 1
 Basic characteristics of study participants

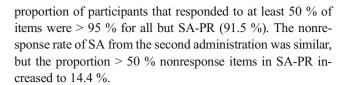
	N=172
Age, years (mean, SD)	43 (9.4)
Educational level	
Illiterate	55.2 %
Primary school level	36.0 %
High school Level	6.4 %
College	2.3 %
Parity (median, range)	5 (0–10)
Mode of delivery	
Vaginal	88.4 %
C section	3.5 %
Vaginal delivery plus C section	4.7 %
Nulliparous	3.5 %
Hormonal state	
Premenopausal	67.4 %
Postmenopausal	32.6 %
Diagnosis	
SUI	40.1 %
UUI	30.2 %
MUI	3.5 %
SUI and POP	26.2 %
Prolapse stage	
Cystocele	Stage II (mean Aa point 1.7 cm)
Rectocele	Stage II (mean Ap point 1.2 cm)

standard deviation, *C section* cesarean secion, *SUI* stress urinary incontinence, *UUI* urgency urinary incontinence, *MUI* mixed urinary incontinence, *POP* pelvic organ prolapse

they had at most a primary school education (91.2 %), and 7 % were diabetic. Diagnosis reported included 40.1 % SUI, 30.2 % urgency urinary incontinence (UUI), 26.2 % SUI plus POP, and 3.5 % mixed urinary incontinence (MUI). Sixtyeight percent reported no previous operation; 52.3 % had surgery planned; 67.4 % were premenopausal. Vaginal delivery was predominant (88.4 %), and most women reported no medical disease (90.1 %).

Item response

Item nonresponse within each NSA and SA scale are summarized in Table 2. For NSA, the response rate was 100 % for all scales except for NSA-CS (condition specific), which had two nonresponses from both the first (6.7 %) and second (7.4 %) questionnaire administration. Since no participant missed 50 % of the items, all NSA scales were calculated from all participants for both administrations. For the SA scale, the nonresponse rate from the first administration was mostly < 10 % for items in SA-AO (arousal/orgasm), SA-CS, SA-GQ (global quality), and SA-D (desire), and mostly > 10 % for SA-PR (partner related) and SA-CI (condition impact). The



Internal consistency

Internal consistency, determined using Cronbach's coefficient α , for each scale is reported in Table 3. Good internal consistency was observed for SA-GQ (α =0.86), SA-CI (α =0.87), and SA-D (α =0.82), along with SA-CS (α =0.74) and SA-PR (α =0.75); it was acceptable for SA-AO (α =0.66) and poor for all NSA scales (α <0.6).

Test-retest reliability

The same questionnaire was administered again, 2 weeks after initial administration, to 27 NSA and 90 SA women of the original cohort. Table 4 provides the difference and correlation between the wo repeated responses. The mean difference of scales ranged from -1.0 to 3.3 for NSA women and -0.4 to 2.8 for SA women. The difference between test and retest for all scale was not significant. Moreover, CCC measuring concordance/ agreement ranged from 0.81 to 0.87 for NSA, except for NSA-CI, with a CCC of only 0.63. CCC for SA scales was typically stronger, ranging from 0.85 (for SA-PR) to 0.96 (for the SA-CI). We also considered a more strict criteria of apparent agreement, which is that the difference between test and retest must be no more than 10 % (Table 4). By this strict criteria, NSA-GQ scale had 85 % agreement but the other three were low (44–52 %). For SA scales, this apparent agreement was high, >72 %, except for SA-PR (54 %).

Discussion

The most valid way of measuring the presence, severity, and impact of sexual dysfunction on a patient's activities and well-being is through the use of psychometrically sound question-naires. We describe the validation and adaptation of the PISQ-IR as a condition-specific tool to assess sexual function of women with PFDs. Validating these questionnaires allows the study of and better treatment for Arabic-speaking women with PFD, which is applicable in many countries around the world. In addition, it will help to screen the minor group of women who are hesitant to initiate talks about their sexual concerns, especially in the conservative Middle Eastern community [10]. The IUGA committee previously validated the questionnaire to different international cultures [6]. In this study, we present our validation and cultural adaptation of



Table 2 Nonresponses for each item for sexually active (SA) and not sexually active (NSA) scale

Item Scale		First administ	ration			Second administration			
		Missing in	Proportion o	f missing items i	n each scale	Missing in	Proportion of missing items in each scale		
		each item	None	≤50 %	>50 %	each item	None	≤50 %	>50 %
Sexually inac	tive	N=30				N=27			
NSA-CS	Q2c Q2d Q2e	0 2 (6.7 %) 0	28 (93.3 %)	2 (6.7 %)	0	0 (0.0 %) 1 (3.7 %) 1 (3.7 %)	25 (92.6 %)	2 (7.4 %)	0
NSA-PR	Q2a Q2b	0	30 (100 %)	0	0	0 0	27 (100 %)	0	0
NSA-GQ	Q4a Q4b	0 0	30 (100 %)	0	0	0 0	27 (100 %)	0	0
	Q5a Q6	0				0			
NSA-CI	Q3 Q5b	0	30 (100 %)	0	0	0 0	27 (100 %)	0	0
	Q5c	0				0			
Sexually activ		N=142				N=90			
SA-AO	Q7 Q8a	1 (0.7 %) 9 (6.3 %)	131 (92.3 %)	11 (7.7 %)	0	0 3 (3.3 %)	86 (95.6 %)	4 (4.4 %)	0
	Q10	1 (0.7 %)				1 (1.1 %)			
	Q11	0 (0.0 %)				0			
SA-CS	Q8b Q8c	5 (3.5 %) 9 (6.3 %)	131 (92.3 %)	6 (4.2 %)	5 (3.5 %)	2 (2.2 %) 6 (6.7 %)	84 (93.3 %)	4 (4.4 %)	2 (2.2 %)
CA DD	Q9	2 (1.4 %)	101	20	12	0	60	0	12
SA-PR	Q13 Q14a	17 (12.0 %) 15 (10.6 %)	101 (71.1 %)	29 (20.4 %)	12 (8.5 %)	7 (7.8 %) 16 (17.8 %)	68 (75.6 %)	9 (10.0 %)	13 (14.4 %)
	Q14b	28 (19.7 %)				16 (17.8 %)			
SA-GQ	Q19a Q19b	13 (9.2 %) 11 (7.7 %)	117 (82.4 %)	19 (13.4 %)	6 (4.2 %)	6 (6.7 %) 1 (1.1 %)	72 (80.0 %)	16 (17.8 %)	2 (2.2 %)
	Q19c	8 (5.6 %)				5 (5.6 %)			
	Q20a	16 (11.3 %)				13 (14.4 %)			
SA-CI	Q18 Q20b	1 (0.7 %) 22 (15.5 %)	110 (77.5 %)	26 (18.3 %)	6 (4.2 %)	2 (2.2 %) 9 (10.0 %)	71 (78.9 %)	19 (21.1 %)	0
	Q20c	19 (13.4 %)				9 (10.0 %)			
	Q20d	16 (11.3 %)				6 (6.7 %)			
SA-D	Q15 Q16	7 (4.9 %) 7 (4.9 %)	124 (87.3 %)	14 (9.9 %)	4 (2.8 %)	4 (4.4 %) 3 (3.3 %)	79 (87.8 %)	11 (12.2 %)	0
	Q17	10 (7.0 %)				4 (4.4 %)			

NSA not sexually active, SA sexually active, CS condition specific, PR partner related, GQ global quality, CI condition impact, D desire

the PISQ-IR for assessing sexual function in Arabic women with POP or UI.

It was important to culturally adapt the questionnaire to the intended community. Our PISQ-IR considered the unique cultural circumstances of Middle Eastern women. Thus, it was necessary to modify some items from the original questionnaire. Religion in the Middle East plays an important role in shaping the health behavior of women; thus, all questions specified sexual practice in the context of the husband—wife relationship.

Our study confirmed that the PISQ-IR is a psychometrically sound instrument with good reliability for evaluating sexual function among sexually active Arabic women with POP and/or UI. The internal consistency was good for five of the six SA scales (α 0.74–0.87) and acceptable for the arousal/orgasm subscale (α =0.66). The test—etest analysis showed the repeat scores to be highly concordant for all scales (CCC>0.84), indicating good overall agreement. Furthermore, our additional, more strict, criteria of differences between test—retest measurement of no more than 10 % also indicated good agreement for



Table 3 Mean transformed sum score and Cronbach's coefficient α for each scale

Scale	No.	Transformed sum score (mean±SD)	Standardized Cronbach's coefficient α
NSA-CS	30	48.7±17.6	<0
NSA-PR	30	41.0±29.8	0.40
NSA-GQ	30	70.9 ± 15.9	0.59
NSA-CI	30	58.9±21.3	0.47
SA-AO	142	47.3 ± 17.1	0.66
SA-CS	137	65.8 ± 22.3	0.74
SA-PR	130	66.8 ± 20.6	0.75
SA-GQ	136	55.9 ± 26.2	0.86
SA-CI	136	55.8 ± 30.0	0.87
SA-D	138	52.6±21.6	0.82

NSA not sexually active, SA sexually active, CS condition specific, PR partner related, GQ global quality, CI condition impact, D desire

the five scales (>72 %). The response rate was high, and women found the questionnaire easy to understand and quick and easy to complete and interpret. However, among NSA Arabic women with POP and/or UI, internal consistency was low for all four NSA scales (α <0.6), even though concordance was good for three scales (CCC>0.8).

Limitations of our study are that women with FI were not included and the number of NSA women was small. We developed a culturally appropriate questionnaire that has established reliability, but validity testing was not done. Furthermore, because of the current lack of available tools to

Table 4 Test-retest reliability

Scale	No.	Difference (second vs first) (mean±SD	Lin's concordance correlation coefficient	Acceptable agreement (absolute difference ≤10 %); N (%)
NSA-CS	27	-1.0±11.7	0.81	13 (48.1 %)
NSA-PR	27	3.1 ± 14.6	0.87	12 (44.4 %)
NSA-GQ	27	-0.2 ± 8.1	0.83	23 (85.2 %)
NSA-CI	27	0.9 ± 18.4	0.63	14 (51.9 %)
SA-AO	90	-0.4 ± 7.3	0.90	77 (85.6 %)
SA-CS	86	1.4 ± 9.5	0.89	70 (81.4 %)
SA-PR	76	2.2 ± 11.7	0.85	41 (53.9 %)
SA-GQ	85	1.1 ± 10.3	0.87	64 (75.3 %)
SA-CI	85	2.8 ± 10.7	0.96	62 (72.9 %)
SA-D	87	2.4 ± 12.0	0.87	72 (82.8 %)

NSA not sexually active, SA sexually active, CS condition specific, PR partner related, GQ global quality, CI condition impact, D desire

assess FSD in Arabic women, our results will strengthen in future studies in which the PISQ-IR is compared/correlated with other measurements for sexual function or pelvic floor dysfunction for Arabic women.

Conclusion

Our preliminary findings indicate that the PISQ-IR is a psychometrically sound instrument with good test–retest reliability for evaluating sexual function among sexually active Arabic women with POP and/or UI; however, for sexually inactive Arabic women, internal consistency is poor.

Acknowledgments Special appreciation to IUGA R&D and IUGA Sexual Function Group for assisting with the translation process. This work was partially supported by the National Center for Advancing Translational Sciences, National Institutes of Health, through grant UL1 TR000153.

Financial disclaimers/Conflicts of interest A.S. El-Azab, M.D.: None G.M. Ghoniem, M.D.: Uroplasty; research grant ROSE Registry (HS: 2011-8420)

S.Y. Leu, Ph.D.: None D.V. Nguyen, Ph.D.: None

Authors' contributions A.S. El-Azab: data collection, manuscript writing, study conception and design

G.M. Ghoniem, M.D., FACS: study conception and design, manuscript writing

S.Y. Leu, Ph.D.: statistical analysis and interpretation, manuscript writing

D.V. Nguyen, Ph.D.: statistical analysis and interpretation, manuscript writing

Appendix

Pelvic Organ Prolapse/Incontinence Sexual Questionnaire, IUGA-Revised (PISQ-IR): Sexual function for women with pelvic organ prolapse, urinary Incontinence, and/or fecal incontinence

- Q1 Which of the following best describes you?
 - a. Not sexually active at all \rightarrow Go to item Q2 Not Active Section
 - b. Sexually active normally with husband → Go to item
 Q7 Sexually Active Section

Sexualy inactive section (Q2 thru 6)

Q2 The following are reasons why you might not be sexually active with your husband. For each one, please



indicate how strongly your agree or disagree with it as a reason that you are not sexual active

	STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE
a. Husband absent (traveling, divorced, passed away)	1	2	3	4
b. No Interest	1	2	3	4
c. Due to bladder or bowel problems (urinary or fecal incontinence) or due to prolapse	1	2	3	4
d. Because of my other health problems	1	2	3	4
e. Pain	1	2	3	4

- Q3 How much does the fear of leaking urine and/or stool and/or a bulging in the vagina (either the bladder, rectum, or uterus falling out) cause you to avoid or restrict your sexual activity?
 - 1. Not at all
 - 2. A little
 - 3. Some
 - 4. A lot

Q4 For each of the following, please circle the number between 1 and 5 that best represents how you feel about your sex life.

RATING						
a. Satisfied	1	2	3	4	5	Dissatisfied
b. Adequate	1	2	3	4	5	Inadequate

Q5 How strongly do you agree or disagree with each of the following statements:

	STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE
a. I feel frustrated by my sex life	1	2	3	4
b. I feel sexually inferior because of my incontinence and/or prolapse	1	2	3	4
c. I feel angry because of the impact that incontinence and/or prolapse has on my sex life	1	2	3	4

- Q6 Overall, how bothersome is it to you that you are not sexually active?
 - 1. Not at all
 - 2. A little
 - 3. Some
 - 4. A lot

Sexually active section (Q7–20)

- Q7 How often do you feel sexually aroused (physically excited or turned on) during sexual activity with your husband:
 - 1. Never
 - 2. Rarely
 - 3. Sometimes
 - 4. Usually
 - 5. Always

Q8 When you are involved in sexual activity, how often do you feel each of the following?

	NEVER	RARELY	SOMETIMES	USUALLY	ALMOST ALWAYS
a. Fulfilled	1	2	3	4	5
c. Shame	1	2	3	4	5
d. Fear	1	2	3	4	5

- Q9 How often do you leak urine and/or stool with any type of sexual activity?
 - 1. Never
 - 2. Rarely
 - 3. Sometimes

- 4. Usually
- 5. Always
- Q10 Compared to orgasms you have had in the past, how intense are your orgasms now?
 - 1. Much less intense
 - 2. Less intense
 - 3. Same intensity
 - 4. More intense
 - 5. Much more intense
- Q11 How often do you feel pain during sexual intercourse?
 - 1. Never
 - 2. Rarely
 - 3. Sometimes
 - 4. Usually
 - 5. Always
- Q12 What is the duration of your marriage?
- Q13 How often does your husband have a problem during sexual intercourse (lack of arousal, desire, erection, etc.) that limits your sexual activity?
 - 1. All of the time
 - 2. Most of the time
 - 3. Some of the time
 - 4. Hardly ever/rarely
- Q14 In general, would you say that your husband has a positive or negative impact on each of the following:

	VERY POSITIVE	SOMEWHAT POSITIVE	SOMEWHAT NEGATIVE	VERY NEGATIVE
a. Your sexual desire	1	2	3	4
b. The frequency of your sexual activity	1	2	3	4

- Q15 When you are involved in sexual activity with your husband, how often do you feel that you want more?
 - 1. Never
 - 2. Rarely

- 3. Sometimes
- 4. Usually
- 5. Always
- Q16 How frequently do you have sexual desire? This may include wanting to have sex, having sexual thoughts or fantasies, etc.
 - 1. Daily
 - 2. Weekly
 - 3. Monthly
 - 4. Less often than once a month
 - 5. Never
- Q17 How would you rate your level (degree) of sexual desire or interest?
 - 1. Very high
 - 2. High
 - 3. Moderate
 - 4. Low
 - 5. Very low or none at all
- Q18 How much does the fear of leaking urine, stool, and/or a bulging in the vagina (prolapse) cause you to avoid sexual activity?
 - 1. Not at all
 - 2. A little
 - 3. Some
 - 4. A lot
- Q19 For each of the following, please circle the number between 1 and 5 that best represents how you feel about your sex life.

RATING						
a. Satisfied	1	2	3	4	5	Dissatisfied
b. Adequate	1	2	3	4	5	Inadequate
c. Confident	1	2	3	4	5	Not confident

Q20 How strongly do you agree or disagree with each of the following statements:

	STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE
a. I feel frustrated by my sex life	1	2	3	4
b. I feel sexually inferior because of my incontinence and/or prolapse	1	2	3	4
c. I feel embarrassed about my sex life	1	2	3	4
d. I feel angry because of the impact that incontinence and/or prolapse has on my sex life	1	2	3	4



References

- Elnashar AM, El-Dien Ibrahim M, El-Desoky MM, Ali OM, Hassan M (2007) Female sexual dysfunction in Lower Egypt. BJOG 114:201–206
- El-Azab AS, Mohamed EM, Sabra HI (2007) The prevalence and risk factors of urinary incontinence and its influence on the quality of life among Egyptian women. Neurourol Urodyn 26:783–788
- El-Azab AS, Abd-Elsayed AA, Imam HM (2009) Patient reported and anatomical outcomes after surgery for pelvic organ prolapse. Neurourol Urodyn 28:219–224
- Pauls RN, Segal JL, Silva WA, Kleeman SD, Karram MM (2006) Sexual function in patients presenting to a urogynecology practice. Int Urogynecol J Pelvic Floor Dysfunct 17:576–580
- Rogers RG, Espuna Pons ME (2013) The pelvic organ prolapse incontinence sexual questionnaire, IUGA-revised (PISQ-IR). Int Urogynecol J 24:1063–1064

- Rogers RG, Rockwood TH, Constantine ML et al (2013) A new measure of sexual function in women with pelvic floor disorders (PFD): the Pelvic Organ Prolapse/Incontinence Sexual Questionnaire, IUGA-Revised (PISQ-IR). Int Urogynecol J 24: 1091–1103
- Acquadro C, Jambon B, Ellis D et al (1995) Language and translations issues. In: Spilker B (ed) Quality of life and pharmacoeconomics in clinical trials, 2nd edn. Lippincott-Raven, Philadelphia, pp 245–252, chapter 63
- Cronbach LJ, Warrington WG (1951) Time-limit tests: estimating their reliability and degree of speeding. Psychometrika 16:167–188
- Liao JJ, Lewis JW (2000) A note on concordance correlation coefficient. PDA J Pharm Sci Technol 54:23–26
- Hashim H, Avery K, Mourad MS, Chamssuddin A, Ghoniem G, Abrams P (2006) The Arabic ICIQ-UI SF: an alternative language version of the English ICIQ-UI SF. Neurourol Urodyn 25:277–282

