

Validation of Sexual Health Inventory for Men Questionnaire in Arabic

Submitted for partial fulfilment of master degree in urology

By

Dr Kirolos Nasry Noah

M.B.B.CH

Under the supervision of

Professor Dr Tarek Osman El Sayed

Professor of urology, faculty of medicine, Ain shams university

Dr Kareem Omar El Said

Lecturer of urology, faculty of medicine Ain Shams University

Faculty of medicine

Ain Shams University

2016

Abstract

Introduction: The SHIM questionnaire was developed to address the need for a self-report measure of both erectile and sexual function that can be given under the guidance of a clinician.

Aim of the work: This study is about the validation of an Arabic version of sexual health inventory for men questionnaire which used for evaluation of male erectile dysfunction and sexual health.

Materials and Methods: this is a 2_steps, prospective, multicenter study using a back _translation method, Arabic language version of the following questionnaire was developed :sexual health inventory for men questionnaire ((SHIM)) the questionnaire was administered in both Arabic and English version to 50 bilingual people with erectile dysfunction symptoms to test reliability the participants were asked to refill the questionnaire in English then in Arabic 2 weeks later . Scores from Arabic and English versions were compared using the Wilcoxon signed rank test, correlation between versions was assessed by the spearman test (($p < 0.05$ or less was considered significant)).

Results: scores from the Arabic and English versions were found to be highly correlated; no differences in total scores were detected between the 2 versions of the questionnaire. Also a Cronbach alpha value was good for all questionnaires. Scores were highly correlated when patients refill the questionnaire in Arabic.

Conclusions: this study provides a validated Arabic version of well accepted SHIM questionnaire this questionnaire will enable standardization when assessing men with erectile dysfunction.

Key words: quality of life questionnaires, validation, Arabic, English, sexual function.

List of abbreviations

ACH	acetylcholine
ADAM	androgen deficiency in aging male
cAMP	cyclic adenosine monophosphate
ATP	adenosine triphosphate
BCR	bulbocavernosus reflex
CCEMG	corpus cavernosus electromyography
DAG	diacylglycerol
DHEAS	dihydroepiandrosterone (sulphate)
DHT	dihydrotestosterone
ED	Erectile dysfunction
FSH	follicle stimulating hormone
GABA	gamma aminobutyric acid
GDP	guanosine diphosphate
GH	growth hormone
cGMP	cyclic guanosine monophosphate
ATPase	guanosine triphosphatase
5HT	5- hydroxyl tryptamine
ICC	intraclass correlation coefficient
ICI	intracavernosal injection
IGF-1	insulin like growth factor-1
IP3	inositol triphosphate
JAMA	journal of American association medical
LH	luteinizing hormone
MCR	melanocortin receptor
MLC	myosin light chain
MMAS	Massachusetts Male aging study

MS	multiple sclerosis
NANC	non adrenergic non cholinergic
NIH	national institute of health
NO	nitric oxide
NOS	nitric oxide synthase
NPT	nocturnal penile tumescence
NPY	neuropeptide Y
PDE-5(I)	phosphodiesterase-5 (inhibitor)
PGE1	prostaglandin E1
PIP2	phosphatidylinositol biphosphate
PSA	prostate specific antigen
REM	rapid eye movement
SD	standard deviation
SHBG	sex hormone binding globulin
SHIM	sexual health inventory for men
SPACE	single potential analysis of cavernous electrical activity
SSEP	somato-sensory evoked potential
SSR	sympathetic skin response
T	testosterone
TGF-1	transforming growth factor -1
VIP	vasoactive intestinal peptide
Vss	visual sexual stimulation

List of tables

Table. No	Title	Page
Table (1)	Urology health status questionnaire results	50
Table (2)	Age descriptive of the study group	51
Table (3)	Urology health status questionnaire distribution of the English group	51
Table (4)	Urology health status questionnaire distribution of the Arabic group	52
Table (5)	Comparison between English and Arabic as regard how would you rate your confidence that you could keep your erection?	53
Table (6)	Comparison between English and Arabic as regard when you had erections, how often were your erections hard enough for penetration (entering your partner)?	54
Table (7)	Comparison between English and Arabic as regard during sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner	55
Table (8)	Comparison between English and Arabic as regard during sexual intercourse, how difficult was it to maintain your erection to completion of intercourse?	56
Table (9)	Comparison between English and Arabic as regard	57

	when you attempted sexual intercourse, how often was it satisfactory to you?	
Table (10)	Comparison between English and Arabic as regard total score.	58
Table (11)	Comparison between English and Arabic as regard mean total score.	59
Table (12)	Differences between mean total scores of repeated English and Arabic testing (Wilcoxon signed Rank Test)	60
Table (13)	Correlation Study between Arabic and English, Using Spearman's Rank Correlation Coefficient Test.	60
Table (14)	Test-Retest reliability.	61
Table (15)	Cronbach's Alpha.	61

List of figures

Fig. No	Title	Page
Fig.1	Structures in the male urogenital triangle, A Inferior view B ventral surface of the body of the penis C lateral view of the body of the penis and glans D Inferior view of the urogenital triangle of a man with the erectile tissues of the penis indicated with overlays.	7
Fig.2	A, Erectile tissues of the penis. B Muscles in the superficial perineal pouch. C Muscles and erectile tissues of the penis in section	10
Fig.3	A, Layers of the penis and main structure. B, Cross section of the body of the penis.	11
Fig.4	A&B MRI scan of the penis showing the corpora cavernosum and spongiosum. Note the corpus spongiosum flaring posteriorly into the bulbospongiosum C, MRI scan showing the bulb of the penis and the attachment of the posterior portion of the corpora cavernosa, the crura. D&E MRI scan of the penis showing the tunica albuginea.	12
Fig.5	Blood vessels and nerves of the perineal region and external genitalia in the adult male the fat body of the ischio_anal fossa has been removed and gluteus maximus has been incised in order to expose the course of the pudendal nerve and internal pudendal artery.	16
Fig.6	Arterial blood supply to the body of the penis.	16

Fig.7	Perineal vessels	18
Fig.8	The nerve supply to the penis. The corpus cavernosum of penis receives both a parasympathetic and sympathetic innervation from the cavernous nerves. The afferent fibres from the glans pass via the dorsal nerves of the penis and via the pudendal nerve	19
Fig.9	Pie chart to determine Urology health status questionnaire distribution of the English group	52
Fig.10	Pie chart to determine Urology health status questionnaire distribution of the Arabic group	53
Fig.11	Comparison between English and Arabic as regard how would you rate your confidence that you could keep your erection	54
Fig.12	Comparison between English and Arabic as regard when you had erections, how often were your erections hard enough for penetration (entering your partner)	55
Fig.13	Comparison between English and Arabic as regard during sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner.	56
Fig.14	Comparison between English and Arabic as regard during sexual intercourse, how difficult was it to maintain your erection to completion of intercourse.	57
Fig.15	Comparison between English and Arabic as regard when you attempted sexual intercourse, how often was it satisfactory to you.	58
Fig.16	Comparison between English and Arabic as regard total score.	59
Fig.17	Comparison between English and Arabic as regard mean total score	59

Contents

Title	Page
Introduction	1
Aim of the work	3
Review of literature	4
Materials and methods	41
Results	49
Discussion	63
Summary & Conclusion	66
References	68
Arabic summary	١

Introduction

What is erectile dysfunction?

Erectile dysfunction is inability to get or keep an erection sufficiently firm for sexual intercourse which can be total inability to accomplish an erection a conflicting capacity to do as such, or a tendency to maintain just brief erections.(**NIH Consensus Development Panel on Impotence. JAMA 1993**)

Erectile dysfunction is some of the time called impotence, yet that word is being utilized less regularly so it won't be mistaken for other, non-medical meanings of the term.

As per point of interest US study, erectile dysfunction is evaluated to influence 52% of men matured 40 to 70 years or upwards of 30 million men in the United States.

The ED problem is strongly age-related, with an approximately 2-to 3-fold increase in the prevalence of moderate-to-severe ED between the ages of 40 and 70 years. It is a significant widespread medical condition affecting more than 100 million men worldwide which impacts negatively on self-esteem, quality of life, and interpersonal relationships a variety of medical, surgical, psychologic, and lifestyle factors has been implicated in the etiology of ED. (**WHO Developing sexual health programmes. A framework for action. 2002**).

Despite the fact that research facility based demonstrative strategies are accessible, it has been recommended that sexual capacity is best evaluated in a characteristic setting with patient self-reporting methods. Self-reporting methods are better than patient interview techniques in some clinical conditions. Because none of the current measures has been demonstrated to have adequate discriminate validity or to provide sufficient sensitivity in evaluating ED, a strong

recommendation of the NIH Consensus Conference was to develop better and more reliable methods for assessing the symptoms and relevant treatment outcomes of ED. **(NIH Consensus Conference. Impotence. NIH Consensus Development Panel on Impotence. JAMA 1993)**

Rosen et al. built up the International Index of Erectile Function (IIEF), a brief, solid, self-controlled estimation of erectile capacity that is diversely legitimate and psychometrically stable, with agreeable affectability and specificity for recognition of treatment-related changes in patients with erectile dysfunction. **(Rosen RC et al., 2004)**

The SHIM questionnaire is made out of 5 inquiries (SHIM), contains 5 domains including erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction. **(Rosen RC et al.,1997 & Rosen RC et al.,2004)**

The International Index of Erectile Function was created to address the requirement for a self-report measure of both erectile function and sexual function that can be given under the direction of a clinician. **(Rosen RC et al., 2004)**

Nonetheless, the SHIM is an extremely worthwhile instrument for the diagnosis of male erectile dysfunction. The five questions are simple, straight forward, yet comprehensive. There are a variety of other more general questionnaires available that contain erectile dysfunction questions such as the international index of erectile dysfunction (IIEF) and male sexual health questionnaire (MHSQ) **(Rosen RC et al.,1997 & Rosen RC et al.,2004)**

Aim of the work

Aim of the work

This study is about the validation of an Arabic version of sexual health inventory for men questionnaire which is used for evaluation of male erectile dysfunction and sexual health.