

## **TRANSLATION, VALIDATION AND CROSS-CULTURAL ADAPTATION INTO PORTUGUESE LANGUAGE OF THE "KING'S HEALTH QUESTIONNAIRE"**

### **Aims of Study**

The use of condition-specific Quality of Life questionnaires has been increasingly used in clinical trials since the last decade. Many authors have encouraged their use in incontinence research because, apart from incorporating the patient's perception, they are inexpensive and non-invasive. The aim of the study was translation, validation and cross-cultural adaptation into the Portuguese Language of the "KING'S HEALTH QUESTIONNAIRE" (KHQ), which was developed and validated by Kelleher et al.<sup>1</sup>.

### **Methods**

The KHQ comprises 21 questions divided into 8 domains in addition to a scale of severity measures. A urinary symptoms scoring item completes the questionnaire.

Two English natives, fluent in Portuguese, prepared two independent forward translations from the original English version of the KHQ. These two versions were, then, backward translated into English by two Brazilian English teacher. Quality of life experts harmonised these translations in a single one, which was pre-tested in 20 patients. After adjustments, the final version of the KHQ was created and administered in 156 patients during the inclusion period. Yet, during the same period, the 36-Item Short-Form Questionnaire<sup>2</sup> (SF-36) was administered in 119/156 (76.3%) of the patients as well. Socio-demographic data were also assessed. Urinary incontinence complaints such as urge, stress or mixed were diagnosed by anamnesis. The median age was 51 years (range 15 to 78). The median period for KHQ re-test was 15 days (range 7 to 22). Reliability was measured by internal consistency (Cronbach's Alpha coefficient) and Test-retest (Intraclass correlation coefficient (ICC)). Construct validity was assessed by Pearson's correlation coefficient.

### **Results**

No changes from the original content and format of the KHQ were observed in the end of the validation process. Internal consistency measured by general Cronbach's Alpha coefficient was 0.87 and assessed by domains and the severity measure scale ranged from 0.49 to 0.92 (Table 1). Test-retest measured by ICC was considered moderate to strong for all domains and the severity measure scale, ranging from 0.53 to 0.81 (Table 1). The evaluation of the construct validity of the KHQ was also satisfactory and statistically significant. Pearson's correlation coefficient between KHQ and SF-36 in the related domains was considered weak to moderate in the majority of the correlation, ranging from -0.27 to -0.53 (Table 2).

### **Conclusions**

The Portuguese version of the KHQ was translated and adapted for application in Brazilian female patients complaining of urinary incontinence, with satisfactory reliability and construct validity.

### **References**

1. Br J Obstet Gynecol 1997; 104: 1374 – 1379
2. Rev Bras Reumatol 1999; 39(3): 143 – 150

**Table 1. Reliability of KHQ - Internal consistency and Test-retest**

KHQ DOMAINS	CRONBACH'S ALPHA	INTRACLASS CORRELATION COEFFICIENT	CONFIDENCE INTERVAL (95%)
GENERAL HEALTH PERCEPTION	-	0.53	0.38-0.66
INCONTIENCE IMPACT	-	0.70	0.60-0.79
ROLE LIMITATIONS	0.82	0.75	0.66-0.82
PHYSICAL LIMITATIONS	0.76	0.69	0.58-0.78
SOCIAL LIMITATIONS	0.69	0.75	0.65-0.82
PERSONAL RELATIONSHPS	0.87	0.66	0.53-0.77
EMOTIONS	0.92	0.72	0.62-0.80
SLEEP / ENERGY	0.49	0.66	0.53-0.75
SEVERITY MEASURES	0.79	0.81	0.74-0.87
URINARY SYMPTOMS	0.73	-	-

**Table 2. Linear association among scores from the related domains of the KHQ and SF-36 (Pearson's correlation Coefficient)**

SF-36 DOMAINS	KHQ DOMAINS								
	GHP	II	RL	PL	SL	PR	E	S/E	SM
GHP	-0.40								
RLPP			-0.27						
PF				-0.53					
RLEP									
BP									
V								-0.52	
GMH							-0.45		
SF					-0.30				

**SF-36:**General Health Perception - **GHP**; Role Limitations due to physical problems - **RLPP**; Physical Functioning - **PF**; Role Limitations due to emotional problems - **RLEP**; Bodily pain - **BP**; Vitality - **V**; General Mental Health - **GMH**; Social Functioning - **SF**

**KHQ:** General Health Perception - **GHP**; Incontinence Impact - **II**; Role Limitations - **RL**, Physical Limitations - **PL**; Social Limitations - **SL**; Personal Relationships - **PR**; Emotions - **E**; Sleep/Energy - **S/E**; Severity Measures - **SM**