

Adaptation of the Copenhagen Psychosocial Questionnaire (COPSOQ) in the Persian language

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Background

- Nursing is a physically and psychosocially demanding job.
- Shortage due to poor physical and psychosocial working conditions.

Background

- Different models, theories and determining questionnaire using in nursing to measure work demands among health care workers.
- Lack of a valid and reliable questionnaire, to cover psychosocial aspects of the client-related work : emotional demands, meaning of work, leadership and job satisfaction.

Aim

- Adaptation of a questionnaire measuring working condition and health problem among Iranian nursing personnel.

Selected instruments

- Working conditions:
 - psychosocial; was from the COPSQQ-I questionnaire medium length
 - Physical; was from the Nurse Early eXit sTudy (NEXT) study.
- Individual factors:
 - Persian version of MUSIC (**M**usculoskeletal **I**ntervention **C**enter)
- Health Status:
 - Persian version of Short Form-36 (SF-36) general and mental health scales
 - Persian version of the Nordic Musculoskeletal Questionnaire (NMQ)

Scales of the Copenhagen Psychosocial Questionnaire (COPSOQ-I) Medium length version

Scales of the Copenhagen Psychosocial Questionnaire (COPSOQ I) Medium-length version	Number of item
Quantitative demands	(4 items)
Emotional demands	(3 items)
Influence at work	(4 items)
Meaning of work	(3 items)
Role clarity	(4 items)
Quality of leadership	(4 items)
Sense of community	(3 items)
Insecurity at work	(4 items)
Job satisfaction	(4 items)
General health	(3 items)
Mental health	(4 items)
Total	(40 items)

Method/Design

- A methodological research design (expert panel method) and survey to test the validity and reliability of the questionnaire.

Table1. The different steps of the adaptation process

	performance	performer
Step 1	Selection of the questionnaire content	First expert panel
	Translation into Persian, back translations into English	Second expert panel
Step 2	Validity : Content validity; content validity index(CVI) Face validity; completing the questionnaire , following by interview	Second expert panel+ four nursing lecturers 32 nursing personnel
Step 3	Reliability (internal consistency and stability)	92 nursing personnel;
Step 4	construct validity	92 nursing personnel;

Participants

- Face validity: 30 voluntary hospital nursing personnel.
- Content validity: the second expert panel + four nursing lecturers from (totally nine experts).
- Construct and reliability assessments: 92 nurses were recruited for the study participants via convenience sampling.
- They were full-time nurses who have more than one year of work experience.

Data collection/validity assessment

- October 2006- December 2007
- Content validity: the content validity index (CVI) in term of relevance, clarity and simplicity of each item were scored.
- Content validity: filling in the questionnaire, writing own comments follow by an interview with each subject.

Data collection/Reliability & Construct validity

- Reliability: Cronbach's alpha & Intra-class Correlation Coefficient (ICC) tests on 92 completed questionnaire were assessed via convenience sampling.

Results

- The average of content validity index (CVI) for questionnaire scales was 87.2%.
- Construct validity: Correlation of the general & mental health scales (SF-36) with psychosocial scales $r_s=0.66$

Table3. Results of the reliability assessment for the scales of the study questionnaire

Scales of the questionnaire	level of Cronbach's alpha/ (N items)	Range/ average of ICC or kappa coefficient
Working conditions		
-Physical and ergonomic scale	0.88(3 items)	0.81-0.92/0.85
-Psychosocial scales (COPSOQ):		
Quantitative demands	0.74 (4 items)	0.82-0.88/ 0.85
Emotional demands	0.79 (3 items)	0.79-0.94/ 0.88
Influence at work	0.75 (4 items)	0.71-0.85/ 0.79
Meaning of work	0.67 (3items)	0.77-0.92/ 0.84
Role clarity	0.82 (4 items)	0.87-0.89/ 0.87
Quality of leadership	0.81 (4 items)	0.72-0.88/ 0.82
Sense of community	0.61 (3 items)	0.70-0.88/ 0.75
Insecurity at work	0.70 (4 items)	0.71-0.88/ 0.76
Job satisfaction	0.84 (4 items)	0.73-0.88/ 0.84
Health problems		
-General health	0.64 (3 items)	0.81-0.89/ 0.86
-Mental health	0.81 (4 items)	0.82-0.97/ 0.94
Musculoskeletal disorders (NMQ)	0.71 (27)	0.70-0.92/ 0.78
3rd COPSOQ workhcn 5a (27) Spine		

Table4. Results of internal consistency of the Iranian version and the Chinese version for the COPSOQ-I

Scales of the Copenhagen Psychosocial Questionnaire (COPSOQ I)	Medium-length version in Iran	Short version in China
	level of Alpha /(N items)	level of Alpha/(N items)
Quantitative demands	0.74 (4 items)	0.35 (3 items)
Emotional demands	0.79 (3 items)	0.70 (3 items)
Influence at work	0.75 (4 items)	0.76 (2 items)
Meaning of work	0.67 (3items)	-
Role clarity	0.82 (4 items)	0.88 (4 items)
Quality of leadership	0.81 (4 items)	0.76 (2 items)
Sense of community	0.61 (3 items)	0.55 (4 items)
Insecurity at work	0.70 (4 items)	0.74 (4 items)
Job satisfaction,	0.84 (4 items)	-
General health	0.64 (3 items)	-
Mental health	0.81 (4 items)	-
Total	(40 items)	(22 items)

Conclusion:

- Acceptable conceptual structure

Table 3. Comparison between three average values (scores ranging from 0 to 100) of the psychosocial variables in Iranian nursing personnel (n= 520), Danish nurses (n= 243) (Aust et al., 2007) and original study (n=1858) (Kristensen et al., 2005)

Psychosocial exposures variables	Iranian nurses Mean (SD)	Danish nurses Mean (SD)	Other jobs (Original study) Mean (SD)
Work demands	61 (13)		
Quantitative demands		51 (15)	44 (18)
Emotional demands		63 (17)	38 (26)
Influence at work	37 (24)	46 (16)	63 (19)
Meaning of work	66 (19)	83 (13)	78 (16)
Leadership	53 (12)		
Quality of leadership		57 (19)	57 (21)
Role clarity		71 (14)	76 (15)
Job satisfaction	30 (18)		

Future plan

- Adaptation COPSOQ II in Persian language