

**Validation a questionnaire  
measuring psychosocial work  
demands among Iranian nurses.**

COPSOQ-ers meeting  
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# Presentation outlines:

1. Introduction
2. Aim
3. Method
4. Importance of the research
5. Progress & future plan

# Introduction



Iran with **70,000,000** has a young population, half of the inhabitants being less than 25 years of age (1).

- Current population growth rate **1.2 %** Iran's population will reach 100 million by 2025 (2,3).





- A high unemployment rate
  - An incomplete social insurance system
- create challenges in the work market, that may affect **workers' health** (1,4 ).

# Introduction

- There is a severe shortage of employed Iranian nurses (5).
- Nurses operate in undesirable working conditions. They are overworked and underpaid compared to other professions on a similar level (3).

## Introduction

- Nurses are compassionate and caring individuals working with people who are suffering, and thus are at risk for job stress and ill health (6,7).
- Nursing work is often considered both physically and psychologically demanding (8,9).

# Introduction

- Musculoskeletal disorders are the most commonly registered causes for disability pension, long-term sick leave and occupational disorders in the nursing profession (9,10,11).

# Introduction

- There seems to be a general shortage of studies addressing both psychologically and physically working conditions throughout nursing, and in particular its association with musculoskeletal disorders.

# Aim

- The aim of this study was to develop a questionnaire in Persian language to estimate the association between psychological and physical working conditions with musculoskeletal disorders among nursing personnel.

# Method

- Validation of the questionnaire conducted through a six steps process which is showed in a table (Table 1)

Table 1- The steps of the questionnaire translation and adaptation process.

Step	Performance	Performer
1	Selecting the questionnaire content	First Expert panel
2	Translation into Persian language	Second Expert panel
3	Confirmation of the translation	Second Expert panel
4	Validity (filling in the questionnaire and individual interviews)	Participants of the pilot study Second expert panel
5	Reliability ( internal consistency and test-retest)	Participants of the reliability study
6	Final Persian version of the questionnaire	Second Expert panel

## Method ...

- In the first step, expert panel method was used including two groups; one expert group in Sweden and one in Iran from different professional areas and specialties that are relevant to the subject.
- The responsibility of the first experts was selecting different scales of a questionnaire that could be covered the main aim of the study.

## Method ...

- The second expert panel reviewed all the translations and back-translation reached a consensus on any discrepancy through continuous contact with the Swedish expert panel.

## Method ...

- In step four the pilot study was performed from January - December 2006. The pilot study participants were: 42 full time nurses with variation in gender, job title, job experience and work schedule.
- Each subject completed the questionnaire and was afterwards interviewed to probe what he or she thought was meant by each item and the response.

## *Reliability assessment*

- In the test-retest study Cronbach's alpha level and Interclass Correlation Coefficient of 0.70 was exceeded by all items. Construct validity was tested using a priori hypothesized correlations of the work-related physical and psychosocial items (four distinctive main constructs of the COPSOQ “demands”, “influence and possibilities for development”, “interpersonal relations and leadership” and “strain) with musculo-skeletal disorders items(12).

## Content of the questionnaire

- Psychosocial job demands
- The Persian version COPSOQ medium size was developed by
- the translation and back-translation procedure including eleven sub-scales: - Quantitative demands, Emotional demands, Influence at work, Meaning of work, Role clarity, Quality of leadership, Sense of community, Insecurity at work, Job satisfaction, general health and mental health (12,13).

## Method: Content of the questionnaire ...

The scales of the COPSOQ are formed by:

- giving equal weight to each question.
- each question have five response options, the weights of them are 0, 25, 50, 75, and 100.
- calculating the scale value as the simple average, and all scales range from 0 to 100.

## Method: Content of the questionnaire ...

- The wording of the socio-demographic, general working condition and the physical working condition questions were from the Nursing Exit Study (NEXT-Study)( 6 Hasselhorn et al, 2003). This questionnaire was available in English accordingly has been translated in Persian and used in this study.

## Method: Content of the questionnaire ...

- The general form of the Nordic musculoskeletal questionnaire (NMQ) developed by Kuorinka et al. (1987) 14 were used to measuring musculoskeletal disorders. This questionnaires was translated and validated in Persian language by Alipuor et al (2007) 15.

## Table 2: Reliability of the COPSOQ scales

Scale	Alpha	ICC	KAPPA
Demands			
Quantitative demands Emotional demands	.8124	.9573	
Influence and development			
Influence at work	.7544	.8043	
Meaning of work	.7071	.8414	
Interpersonal relationship and development			
Quality of leadership	.8176	.8172	
Sense of community	.7796	.8750	
Role-clarity	.8263	.8797	
Additional scales			
General health Mental health	.7227	.9314	
Job insecurity	.7064		.7690
Strain (effects, outcomes)			
Job satisfaction	.8402	.8187	

# Table 3: Reliability of the additional scales

Scale	source	Alpha or Kurder & Richardson	ICC	KAPPA
physical working condition	NEXT	.8800	.9000	
Musculoskeletal disorder	NMQ	.9200		.8500

# Results

- The Persian version of the questionnaire has a good conceptual structure and provides reliable information on workplace psychosocial and physical factors.
- Thus using this adapted questionnaire to study working condition of the Iranian nursing personal can help to the nursing manager to improve nursing physical and psychosocial working condition.

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