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Research Paper

Validity and Reliability of the Persian Version of the World Health Organization Quality of Life Questionnaire – the Older Adults Edition

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ABSTRACT

Objectives This study was performed to investigate the validity and reliability of the Persian version of the World Health Organization Quality of Life Questionnaire – Older Adults Edition (WHOQOL-OLD).

Methods & Materials The statistical sample consisted of 300 elderly (150 males and 150 females) with an age range of 60-80 years old who were selected in Tehran City. The tools used included the WHOQOL-OLD with 24 questions and 6 components. The IQOLA translation model was used to translate the quality of life in Iranian elderly. To determine the validity, the face, content, concurrent, and structural validity were used. To determine the reliability, the temporal stability and internal consistency methods were used.

Results The results showed that more than 85% of the questions had optimal translation quality, thus the face validity of the Persian version WHOQOL-OLD was obtained. Results showed that the content validity ratio (CVR) for all questions was obtained between 0.7-1 and the content validity index (CVI) was 0.85. Results of Pearson correlation coefficient test showed that the correlation between the total score of WHOQOL-OLD and GHQ-28 questionnaires was 0.53 ($P<0.05$). Therefore, this results showed that the concurrent validity of WHOQOL-OLD questionnaire. The construct validity results showed that the WHOQOL-OLD questionnaire had acceptable fit indexes (such as CFI=0.924, GFI=0.901, AGFI=0.953, RMSEA=0.048). Finally, results showed that the test-retest interclass correlation test indicate that the temporal stability is acceptable (0.78-0.89). Furthermore, the results of Cronbach's alpha coefficient showed that the internal consistency of each component was acceptable ($\alpha>0.75$).

Conclusion Results indicated that the Persian version of the WHOQOL-OLD is valid and reliable, and especially can be used to assess the quality of life among Iranian elderly people.

Extended Abstract

1. Introduction

One of the fundamental issues that engages researchers and professionals in the study of functional consequences at different individual and social levels is the development of appropriate scales for evaluation. If these scales are available internationally, the goal is to select the appropriate scale from the available tools.

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The purpose of this selection is to achieve tools that meet the clinical and research needs of researchers at the desired level. In the meantime, researchers are usually looking for tools that cover their intended concepts as accurately and completely as possible.

These concepts are evaluated with the aim of evaluating the effects of injuries and diseases, the effectiveness of strategies, interventions and treatment and rehabilitation programs, and finally clinical decisions to continue, stop or correct these measures.

In the meantime, issues such as the focus of the tool on the target communities, how the tool is used to examine or question the elderly, the psychometric properties of the tool, and the components of the tool are taken into consideration. In recent years, one of the measurable indicators and criteria for determining the needs and improving the health conditions of the elderly is the quality of life index [1, 2].

According to the World Health Organization definition, quality of life includes people's perception of their position in life in terms of culture, the value system in which they live, their goals, expectations, standards and priorities. Since increasing the quality of life of the elderly leads to an increase in their health status, so researchers study the quality of life of people in the community to determine health.

Therefore, one of the most widely used tools for assessing health status in the world is the WHOQOL, which assesses the quality of life for those aged 18 and over [3]. In general, it is important to note that the accepted validity and reliability of a tool in one language does not guarantee that this feature will remain intact after translation into other languages.

Culture, language and geographical location are factors that should be considered when using a tool in a different environment from where it has spread [9]. Therefore, in this study, in the first stage, we will translate the Persian version of the WHOQOL-OLD and then in the next stage, we will determine the validity and reliability of the Persian version of this questionnaire.

If you get a reliable and valid version of this questionnaire, there would be many benefits to using this tool. For example, the results of these tools can be used to compare the effectiveness and relative value of different treatments in the elderly, research, health policy, health service evaluation, treatment of the elderly, and improving the physician-elderly relationship.

2. Methods & Materials

The statistical sample of the present study included 300 elderly people aging 60-64 years. Inclusion criteria were: providing a consent form; the ability to communicate in Persian; being 60 years of age or older; and having the appropriate cognitive ability (obtaining a score of greater than and equal to 6 from the Abbreviated Mental Test).

In this study, the standard method of translating the International Quality of Life Assessment (IQOLA) project was used to translate the WHOQOL-OLD scale. In order to evaluate the apparent validity of the questionnaire items, five elderly people similar to the target community were asked about the clarity and comprehensibility of the questionnaire and 10 experts were asked about the general form and comprehensibility of the questionnaire items.

Lawshe method was used to determine the content validity. In this method, Content Validity Ratio (CVR) and Content Validity Index (CVI) are used. In order to evaluate the simultaneous validity, Pearson correlation coefficient of the total score of the WHOQOL-OLD with the total score of the 28-item General Health Questionnaire was analyzed.

In order to evaluate the construct validity of the elderly quality of life questionnaire, Confirmatory Factor Analysis (CFA) was performed based on Principal Component Analysis (PCA) using Amos software. Finally, to evaluate the reliability of the questionnaire by test-retest method, 100 elderly people with a two-week interval (this time was extracted based on previous studies) re-completed the WHOQOL-OLD.

3. Results

Apparent validity was used to assess the clarity, simplicity and comprehensibility of each of the questions in the Persian version of the WHOQOL-OLD. Items that had an unfavorable and relatively desirable translation were discussed in a meeting with experienced professors.

In this session, the suggestions of translators were used and the desirability of translating the mentioned items was obtained. To check the validity of the content, Lawshe method was used. The results showed that the content validity scores for all items of the questionnaire ranged from 0.7 to 1, which were confirmed.

4. Conclusion

Then, to obtain the content validity index score, the scores related to the content validity ratio of all questions were added together and divided by the number of questions (24 questions) and the final content validity index number was 0.85, which indicates the acceptable content validity of the WHOQOL-OLD.

To evaluate the simultaneous validity, Pearson correlation coefficient between the total score of the WHOQOL-OLD and the 28-item General Health Questionnaire was examined. The results showed that the correlation coefficient obtained between the two variables was equal to 0.53 ($P<0.05$); so, the results indicated the simultaneous validity of the WHOQOL questionnaire.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of the University of Social Welfare and Rehabilitation Sciences.

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Authors' contributions

Conceptualization: Mehdi Rassafiani, Robab Sahaf, Amir Shams; Methodology: Robab Sahaf, Amir Shams; Validation: Mehdi Rassafiani, Robab Sahaf, Amir Shams; Investigation, writing–review & editing: Amir Shams, Hosain Zareian; Writing–original draft: Mehdi Rassafiani, Amir Shams, and Hosain Zareian; Visualization, Supervision, Project Administration: Mehdi Rassafiani, Amir Shams, Rahim Akrami; Funding Acquisition: Mehdi Rassafiani, Rahim Akrami.

Conflicts of interest

The authors declared no conflict of interest.