Abstract

Background: Chronic conditions often result in a person experiencing both physical and mental disorders, which limit them from carrying out their daily activities and will further affect the patient’s quality of life. Generic tools are tools that can be used for all conditions and levels of disease, while specific tools are used for patients with certain diseases. The AQoL-4D is a generic quality of life instrument that can be used for all conditions and levels of disease. This study aims to determine the validity and reliability of the Indonesian AQoL-4D instrument in chronic disease patients at health centers in Surabaya.

Methods: The language transfer process was carried out according to WHO guidelines for translating and adapting English Language Instruments. Validation and reliability of the Indonesian version of AQoL-4D was carried out on 142 chronic disease patients, and then the data were analyzed statistically to test the consistency between the components of the construct and others.

Results: The result of the construct validity test obtained a count range from 0.347 to 0.595 which are greater than n-table (α = 0.05; df = 140) of 0.166, so it can be said that the measurement results of each component of the AQoL-4D questionnaire are correlated respectively. Even though the reliability test results have a moderate Cronbach value of 0.669, this instrument is considered adequate reliable.

Conclusion: The Indonesian version of AQoL-4D instrument is valid and reliable for measuring the quality of life of patients with various levels and conditions of chronic disease.

Keywords: Validation, questionnaire, quality of life, chronic disease, AQoL-4D

Introduction

Chronic conditions often result in a person experiencing both physical and mental disorders, thus limiting them to do daily activities; further affecting a patient’s quality of life. Various instruments to measure the quality of life related to health have been developed. Instruments that can measure the quality of life related to health can be divided into 2 categories, namely general and specific. Generic instruments are tools that can be used for all conditions and levels of disease, while specific tools are tools used in patients with certain diseases. The AQoL instrument is one of the generic quality of life instruments that have been developed (1). The AQoL-4D instrument consists of 4 dimensions, namely independent living, relationships, senses, and mental health represented by 12 questions where each dimension consists of 3 questions (2). To recent Indonesian version of AQoL-4D has not been found. This study aimed to determine the validity of the Indonesian language AQoL-4D instrument in patients with chronic diseases at primary health care centers in Surabaya.

Methods and Materials

The language transfer process is carried out by the WHO guideline for translating and adapting English Instrument (3). This process involved 2 translators who met WHO requirements, in addition, this process also involved panel experts. The first step is translated The AQoL-4D questionnaire into Indonesian, and then the expert panel assessed the results of forwarding translation and resolved differences in understanding between the results of the translation and the original questionnaire. The third step is backward translation into English and the last step is pre-testing and cognitive interviewing to obtain the final version of the Indonesian AQoL-4D questionnaire. The Indonesian version of AQoL-4D was tested to 20 chronic disease patients. The validation and reliability of the Indonesian version of AQoL-4D were carried out in 142 patients, 70 hypertensive patients, and 72 TB patients.

Results and Discussion

Forward translation was conducted by translating the AQoL-4D questionnaire from English into Indonesian, which was done by an Indonesian translator who has lived in an English-speaking country for 2 years. The translator is a pharmacist who understands the terms used in the AQoL-4D questionnaire.

The result of expert panel reconciliation is of twelve questions there was only one question, question 6, that the panel expert suggested to change the word used. The original sentence was “Do you need any help looking after yourself? (For example: dressing, bathing, eating)” and the translator translate it in to “Apakah anda membutuhkan bantuan orang lain untuk menjaga anda?”. The word “menjaga” was suggested to be replaced with the word “merawat” - “Menjaga” was close to the meaning of “to guard” which usually related to the safety of a person, whilst “merawat” close to the meaning of “caring”.

Backward translation process involved translating the results of Indonesian translations back into English by a translator who have English as their mother tongue and also mastering Indonesian. The translator is not a health care professionals and has lived in Indonesia for more than a year and therefore he also understand the local culture. The result then was discussed by panel expert and concluded no difference in meaning was obtained for all twelve questions.

The result of pre-testing and cognitive interviewing processes concluded that all questions were easily understood and used resulted in achieving final Indonesian AQoL-4D questionnaire. The final version of Indonesian version AQoL-4D questionnaire were then analyzed statistically to test the consistency between components of the construct with another, and the r-count value was greater than r-table (α = 0.05; df = 130) with 0.166, so it can be said that the measurement results of each components AQoL-4D questionnaire is correlated with each other. The correlation values of the questions were range from 0.347 to 0.59. The Cronbach’s a value was 0.669 (Cronbach’s a> 0.6) so it can be said that the AQoL-4D questionnaire is reliable to measure the quality of life of patients with chronic diseases.

Conclusion

The Indonesian version AQoL-4D questionnaire is valid and reliable to be used to measure the quality of life of patients with various level and condition of chronic diseases.

References


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