ORIGINAL ARTICLE

Persian Adaption of Personal Self-Care Assessment Questionnaire

Soheila Dabiran[1], Saeedeh Sarhadi[2], Farahnaz Khajenasiri[1], Azita Kheiltash[1]

[1] *Department of Community Medicine, Tehran University of Medical Sciences, Tehran, Iran*

[2] *Department of Community Medicine, School of Medicine, Zahedan University of Medical Sciences, Zahedan, Iran*

Abstract- The purpose of this study was to evaluate the self-care assessment questionnaire that is used to study the level of self-care in healthy adults. In the first stage, the self-care assessment questionnaire was translated from English to Persian using the forward-backward method. The final Persian version was evaluated in terms of translation clarity, compliance with Iranian culture, and consistency with concepts in the original version. Subsequently, the psychometric properties of the tool were determined. During the translation and localization process, changes were made to the Persian version for a better understanding. The Cronbach's alpha coefficient of the different dimensions of the tool was within the desired range (0.782-0.924). Considering the importance and necessity of a self-care assessment questionnaire in healthy adults, a comprehensive and multidimensional questionnaire was selected and localized. This questionnaire can be used to improve the level of health and self-care.

Introduction

Self-care is one of the most important forms of primary care (1) and refers to care provided by a person to maintain and improve his or her health (2). Self-care is expected to increase the patient's satisfaction, reduce complications, decrease hospitalization, increase control over their feelings, improve the quality of life, reduce health costs, promote independence, reduce the use of health services, improve disease symptoms, and enhance postoperative recovery (3). The importance of the concept of self-care is increasing considering the advances in the medical sciences and the increased medical costs. On the other hand, population growth and lack or shortage of health and welfare facilities and decreased access of the population to treatment and health services highlight the need for health control by people and the role of self-care (4). Hence, attention should be paid to some essential infrastructures such as training, information transfer methods, financial support (6), and barriers such as high costs, lack of knowledge, being time-consuming (7). Self-care is an active process and involves various social, spiritual, emotional, and physiological dimensions (8). Questionnaires are data collection tools. Some of these tools are related to specific health conditions, such as diabetes,

hypertension, heart failure, and some of these questionnaires are used for self-care assessment in healthy adults such as the ASA-A (Appraisal of Self-Care Agency), ASA-C (Appraisal of Self-Care Agency Scale–Chinese version), ASA- R (Self-Care Agency Scale-Revised), SASE (Self-care Ability Scale for the Elderly), SCHDE (Self-Care of Home-Dwelling Elderly), LSCS (Lorensen's Self-care Capability Scale), DSCAI (Denyes Self-Care Agency Instrument), DSCPI (Denyes Self-Care Agency Instrument), ESCA (The Exercise of Self-Care Agency), and PSCAQ (Perceived Self-Care Agency Questionnaire) (9). There are several examples of localization and translation of these questionnaires to target languages and assessment of their reliability and validity, such as the localization of the ESCA questionnaire in Taiwan (10) and the ASA-R questionnaire in Brazil (11). Questionnaires are the main data collection tools, and there is an increasing need for different questionnaires in the native language (12). Maneesrivangul believes that in the process of instrumentation, cultural background differences should be considered along with the instrument's translation, and the instrument must be congruent with the culture of the target community to be valid and reliable (13). In addition, an evaluation tool should contain be relevant and easily applied to the target population (14). Since

Corresponding Author: S. Dabiran

Department of Community Medicine, Tehran University of Medical Sciences, Tehran, Iran

Tel: +98 54 33295715, Fax: +98 54 33295728, E-mail address: dabiran@tums.ac.ir

Iran is experiencing a transition in the areas of health care, economics, education, and mass media, a careful assessment of health behaviors and lifestyles is essential for designing and developing preventive programs (15).

Therefore, it is necessary to have a questionnaire in Persian to evaluate different aspects of self-care. The Personal Self-Care Assessment questionnaire is a comprehensive and multidimensional questionnaire developed by David Irvine in 2001.

This questionnaire has not been translated or localized, and its reliability and validity in other languages have not been assessed so far.

Therefore, this study was conducted to translate and localize the Personal Self-Care Assessment questionnaire and evaluate the validity and reliability of its translated version.

Materials and Methods

The Personal Self-Care Assessment questionnaire (16) comprises 75 items and 5 dimensions. The questions 1-15 are related to physical health, questions 16-30 are related to mental and emotional wellbeing, questions 31-45 are related to management priorities, questions 46-60 are related to supportive relationships, and questions 61-75 are related to meaning. A 5-point Likert scale (Never, Rarely, Occasionally, Often and Always) is used to answer the questions. In this study, despite a web search using the keywords of self-care, self-care assessment, self-care questionnaire, and translation of personal self-care assessment in the databases of Elsevier, Web of Science, Scopus, Google Scholar, Ovid, SID, Iran Doc, Iran Medex, and Mag Iran, no items related to localization or validation of this questionnaire were found. Correspondence with the designer and author of the questionnaire confirmed that it was not translated into Persian. After the consent of the questionnaire's inventor (David Irvine) (17) was obtained, the translation process started. In the first stage (forward translation), the English version was translated to Persian by two translators. The second stage was incorporation, during which the two translated versions of the questionnaire were examined, and a preliminary draft was obtained. In the third stage (backward translation), the Persian version provided in the previous step was translated to English by two translators who were fluent in English and Persian, and an English version was provided. In the final stage (comparison), the translated version was compared with the original version in terms of concept, and a final questionnaire was obtained. It should be noted that the final Persian version was evaluated in terms of translation clarity, lack of specialized vocabulary, conformity to Iranian culture and consistency with concepts in the original version. The final questionnaire was completed by 20 women aged 15-60 years who were referred to the health centers of the south of Tehran. Since face validity can be increased through proper displacement of words or phrases (18), we used 20 persons to evaluate the face validity of the questionnaire and asked them to comment on the ease of completion as well as its grammar, spelling, and clarity of words and phrases. Content validity is measured to ensure that the test represents the structure that it measures (19). The content validity study is conducted quantitatively and qualitatively (20). The qualitative method was used in this study. In this method, 10 experts in this field were asked to provide a detailed and written explanation of their corrective comments after a detailed evaluation. Subsequently, all comments were applied to modify the questionnaire. To determine the reliability of the Personal Self-care Assessment questionnaire, an internal consistency method was used. In this study, the Cronbach's alpha coefficient was used to determine the internal consistency of the questionnaire.

Results

During the translation and localization process of the questionnaire, changes were made in the Persian version for a better understanding of the respondents and conformance to Iranian cultural and social conditions. Questions 4 and 29 were related to alcohol consumption and were eliminated because they did not conform to the Iranian culture. The negative form of the question raised questions about its comprehensibility. Hence, questions 3 and 7 were translated as positive questions, unlike the original English version. In question 8, the use of unrefined carbohydrates was replaced with sweets. In question 12, instead of 3 liters of water, 12 glasses of water was used. In question 31, since a significant number of women were housewives, working at home was added to the question for clarification. Due to the ambiguity of question 53, the amount was added to the working hours. Thus, after the changes, the Persian version of the questionnaire was considered acceptable.

In the next step, the internal consistency of the questionnaire was calculated using the Cronbach's alpha coefficient. Table 1 shows the factors and their Cronbach's alpha. The first factor was "Physical Health" with a Cronbach's alpha of 0.794. "Mental and Emotional Well Being" was the second factor with a

Cronbach's alpha of 0.782. The third factor was "Managing Priorities and Personal Power" with a Cronbach's alpha of 0.917. The fourth factor was "Supportive Relationship" with a Cronbach's alpha of

0.857, and "meaning" was the fifth factor with a Cronbach's alpha of 0.0825. Moreover, the internal consistency (Cronbach's alpha coefficient) of the questionnaire was 0.934.

Table 1. Confirmation of the internal consistency of Cronbach's alpha coefficients of the questionnaire

Factor	Number and number of phrases	Cronbach's alpha coefficient
"Physical Health"	14(1-14)	0.794
"Mental And Emotional Well Being"	15(15-29)	0.782
"Managing Priorities And Personal Power"	15(30-44)	0.917
"Supportive Relationship"	15(45-59)	0.857
"meaning"	15(60-75)	0.825
Whole scale	74	0.934

Discussion

Self-care activities are part of daily activities in healthy and sick individuals and include all activities that help physical, mental, and social health and prevent diseases (21). This study showed that the translated and localized version of the Self-Care Assessment questionnaire is useful for better evaluate their level of self-care. What is important about any measurement tool is its validity (22). In this study, the content validity of the tool was measured based on the experts' judgment in a qualitative manner. Finally, 4 questions were modified due to difficulty in comprehension and a final questionnaire with 74 items was prepared. The next step after validity was to determine the reliability of the questionnaire. Reliability is indicative of the accuracy of the measuring tool and refers to the stability of measuring the traits or structures in a tool (23). In order to have a good internal consistency, the Cronbach's alpha should be between 0.7 and 0.8 (24). In this study, the Cronbach's alpha coefficient confirmed the reliability of the instrument and its factors. The Personal Self-Care Assessment questionnaire has not been translated or localized to date. This tool is a comprehensive and multidimensional questionnaire for evaluation of self-care function and provides recommendations in accordance with the level of self-care in different dimensions. Many questionnaires only measure self-care awareness and attitude. Therefore, localization of this tool is an effective step in providing a tool for improving the level of health and self-care.

Acknowledgments

References

1. Nilvarangkul K, Wongprom J, Tumnong C, Supornpun A, Surit P, Srithongchai N. Strengthening the self-care of women working in the informal sector. Local fabric weaving in khon kaen, Ind Health 2006;44:101-7.

2. Tajvar M, Arab M, Montazeri A. Determinants of health-related quality of life in elderly in Tehran, Iran. BMC Public Health 200;8:323.

3. Sidani S. Self-Care. In: Doran DM, editor. Nursing-sensitive outcomes: State of the science. Sudbury, MA: Jones and Bartlett, 2003:65-114.

4. Hemmati Maslak Pak M, Hashemlo L. Design and Psychometric Properties of a Self-Care Questionnaire for the Elderly. Salmand 2015;10:120-31.

5. Eftekhar H, Mohammad K, Tavafian S, Mirkarimi K, Ramezanzadeh A. The Perceived of Self Care amongGeneral People Living in South of Tehran, Iran. IRJE 2009;5:33-9.

6. Newbrander W, Barnum H, Kutzin J, eds. Hospital Economics and Financing in Developing Countries. Geneva: World Health Organization, 1992.

7. Fard JS NH, Moghadam MHB, Abad SSMM, Sanati HR, Shahi MA. Education effect on self-care behavior and its benefits and barriers among patients with coronary heart disease in Tehran. Salamat Payavard 2008;4:43-55.

8. Parsa P, Ahmadinia Tabesh R, Soltani F, Karami M, Khorami N. Effects of Group Counseling on Self-care Behaviors in Menopausal Women with Diabetes. J Menopausal Med 2017;108:116-23.

9. Urpí-Fernández AM, Zabaleta-Del-Olmo E, Montes-Hidalgo J, Tomás-Sábado J, Roldán-Merino JF, Lluch-Canut MT. Instruments to assess self-care among healthy children: A systematic review of measurement properties. J Adv Nurs 2017;73:2832-44.

10. Wang HH, Laffrey SC. Preliminary development and testing of instruments to measure self-care agency and social support of women in Taiwan.. Kaohsiung J Med Sci 2000;16:459-67.

11. Damásio BF, Koller SH. The Appraisal of Self-Care Agency Scale - Revised (ASAS-R): adaptation and construct validity in the Brazilian context. Cad Saude Publica 2013;29:2071-82.

12. Zohrabi M. Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. Theory Pract Lang Stud 2013;3:254-62.

13. Maneesrivangul W. Instrument translation process: A method review. J Adv Nurs 2004;48:175-86.

14. Söderhamn O, Lindencrona C, Ek AC. Ability for self-care among home dwelling elderly people in a health district in Sweden. Int J Nurs Stud 2000;37:361-7.

15. Mohammadi Zeidi I, Pakpour Hajiagha A, Mohammadi Zeidi B. Reliability and Validity of Persian Version of the Health-Promoting Lifestyle Profile. J Mazandaran Univ Med Sci 2012;21:102-13.

16. Dream Catcher Consulting. (Accessed June 2018, 12, at http://dreamcatcher-consulting.com/assess[1].pdf).

17. The leares's Navigator. (Accessed June 2018, 12, at www.davidirvine.com).

18. Asadi-Lari M, Packham C, Gray D. Psychometric properties of a new health needs analysis tool designed for cardiac patients. Public Health 2005;119:590-8.

19. Rubio DM, Berg-weger M, Tebb SS, Lee Es, Rauch S. Objectifying content validity: Conducting a content validity study in social work research. Soc Work Res 2003;27:94-104.

20. Mukenzie JF, Wood ML, Koteck Je. Establishing content validity:Using qualitative and quantitative steps. Am J Health Behav 1990;23:311-8.

21. David Webber, Zhenyu Guo, Stephen Mann. Self-Care in Health: We Can Define it,but Should We Also Measure It? Self Care J 2013;4:101-6.

22. Morse JM, Field PA, eds. Qualitative research methods for health professionals. 2nd ed. Oxford: Sage Publications, 1995.

23. Dempsy PA, Dempsy AD, eds. Using research: Process, critical evaluation and utilization. 5th ed. Philadelphia: Lippincott Williams & Wilkins, 2002.

24. Bland JM, Atman DG. Statistic note: Coronbach alpha. BMJ 1997;314:572.