



Psychometric properties of the Chinese version of the European Heart Failure Self-care Behaviour Scale

Doris S.F. Yu ^{a,*}, Diana T.F. Lee ^{1,b}, David R. Thompson ^{2,c}, Tiny Jaarsma ^{3,d},
Jean Woo ^{4,e}, Edward M.F. Leung ^{5,f}

^a Room 729, Esther Lee Building, The Nethersole School of Nursing, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong

^b Room 725C, Esther Lee Building, The Nethersole School of Nursing, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong

^c Cardiovascular Research Centre, Australian Catholic University, Melbourne, Vic 3065, Australia

^d Department of Social- and Welfare Studies, Linköpings Universitet, ISV, 601 74 Norrköping, Sweden

^e Department of Medicine and Therapeutics, The Chinese University of Hong Kong, Hong Kong

^f Department of Medicine and Geriatrics, United Christian Hospital, 130 Hip Wo Street, Kwun Tong, Kowloon, Hong Kong, Hong Kong

ARTICLE INFO

Article history:

Received 8 June 2010

Received in revised form 23 August 2010

Accepted 27 August 2010

Keywords:

Self-care

Chronic heart failure

European Heart Failure Self-care Behaviour Scale

Psychometric evaluation

ABSTRACT

Background: Effective self-care is the cornerstone of the successful management of heart failure (HF). The European Heart Failure Self-care Behaviour Scale is a brief, reliable and valid scale to measure this important construct among patients with HF. Although the EHFSBS has been translated to different languages, no Chinese version is available. Indeed, previous findings investigating the psychometric properties of EHFSBS indicated ambiguity of the conceptual structure of this scale.

Aim: The aim of this study was to translate the European Heart Failure Self-care Behaviour Scale (EHFSBS) into Chinese and to test its psychometric properties in the Chinese patients with HF.

Methods: The EHFSBS (English Version) was translated to Chinese using Brislin's forward and backward translation method. Panel review was used to examine its semantic equivalence and content validity. The EHFSBS (Chinese Version) was then tested with a convenience sample of 143 Chinese HF patients who attended a specialist clinic from January to September 2007.

Results: The content validity index (CVI) of the EHFSBS (Chinese version) was satisfactory (Item CVI = 0.96; Scale CVI = 0.89), with Cronbach's alpha 0.82. Convergent validity was supported by a moderate relationship, statistical significant with a measure for social support ($r = -0.36$, $p < 0.001$). However, the findings did not support the hypothesised three-factor structure of the EHFSBS (Chinese Version). Instead, all items except one fit well a two-factor structure to measure help-seeking and regimen-complying behaviours.

Conclusion: The adequate psychometric properties and clear conceptual structure of EHFSBS (Chinese Version) warrant its use in Chinese patients with HF.

© 2010 Elsevier Ltd. All rights reserved.

* Corresponding author. Tel.: +852 3163 4289; fax: +852 2603 5269.

E-mail addresses: dyu@cuhk.edu.hk (Doris S.F. Yu), tzefanlee@cuhk.edu.hk (Diana T.F. Lee), David.Thompson@acu.edu.au (D.R. Thompson), tiny.jaarsma@liu.se (T. Jaarsma), jeanwoowong@cuhk.edu.hk (s.s. Woo), emfleung@ha.org.hk (Edward M.F. Leung).

¹ Tel.: +852 2609 8103; fax: +852 2994 2107.

² Tel.: +61 39953 3680.

³ Tel.: +46 11 36 3550.

⁴ Tel.: +852 2636 3493; fax: +852 2606 3500.

⁵ Tel.: +852 3513 4822; fax: +852 3513 5548.

What is already known about the topic?

1. Ineffective self-care for HF has been identified as a modifiable risk factor for poor health outcomes and hospital admission. A reliable and valid measure for self-care is crucial to identify the self-care needs of HF patients and to evaluate the health service for enhancing their self-care.
2. The English version of the European Heart Failure Self-care Behaviour Scale (EHFScBS) is a reliable and valid instrument for measuring self-care in patients with HF. It has also been developed into multiple language versions. Yet, the finding about its internal structure was ambiguous and was not adequate to support the originally postulated three-factor internal structure.

What this paper adds

1. The Chinese version of the EHFScBS which can fit into the linguistic and cultural background of the Chinese patients with HF was developed from its original version.
2. The Chinese version of the EHFScBS could be used as a reliable and valid method to assess the self-care of Chinese patients with HF.
3. The current study adds evidence to suggest a two-factor structure of the EHFScBS in assessing self-care in Chinese patients with HF.

1. Introduction

Heart failure (HF) is a clinical syndrome characterized by failure of the myocardial pump function to meet the bodily metabolic need (Dickstein et al., 2008). The disease usually occurs as the end stage of cardiac pathology and is predominantly condition of older people. As a result of global population aging, improved preventive and curative care of acute coronary events, and an increased prevalence of coronary risk factors (e.g. hypertension), HF has become a global epidemic (Mosterd and Hoes, 2007). Even in a non-western country, such as China, the incidence and prevalence rate has been reported as 0.07% and 0.9% respectively in the general population (Gu et al., 2003; Hung et al., 2000), and it is estimated that there would be a rise in the future (Gu et al., 2003).

Effective management of HF requires patients to comply with a complex medication regimen, conduct daily self-monitoring on disease status, and follow various lifestyle modifications such as dietary control, fluid restriction and activity pacing (Dickstein et al., 2008). Self-care is a concept used to describe all these behaviours. It refers to a collection of actions performed by an individual in everyday life to maintain health, prevent disease, manage illness and limit the detrimental health consequences relating to disease exacerbation (Moser and Watkins, 2008). Cumulative evidence suggests the significant role of appropriate self-care in improving the health outcomes and reducing avoidable hospital readmission for HF (Deakin et al., 2005; Jovicic et al., 2006). For this reason, published clinical practice guidelines highlight

the importance of optimizing patients' self-care in HF management. Yet, a better understanding of self-care of Chinese HF patients and a more stringent outcome evaluation of the related health care services are hampered by a lack of HF self-care instrument that are appropriate to Chinese linguistic and cultural backgrounds.

An effective scale to assess self-care in HF patients is the cornerstone for identifying the learning need of patients for effective self-care and evaluating the effects of related health care service. For clinical use, such instrument needs to be relatively simple to administer, accurate in assessing self-care, and sensitive to detect changes (Morley and Snaith, 1992; Nasrallah et al., 2005). In the last decade, a number of scales have been developed to pursue these purposes (Bennett et al., 2001; Jaarsma et al., 2003; Riegel et al., 2004). Among these scales, the European Heart Failure Self-care Behaviour Scale (EHFScBS) is the briefest one that allows accurate assessment of the self-care of HF patients within 5–10 min (Jaarsma et al., 2003). This scale is based on the international guidelines for HF management (Heart Failure Society of America, 2006; Dickstein, 2008) and takes into account the opinions of both HF patients and clinical experts (Jaarsma et al., 2003). It defines self-care as the strategies undertaken by an individual to maintain and optimise his or her own health and well-being. Conceptually, this questionnaire covers all behaviours of a patient that can positively contribute to HF health outcomes. Such behaviours include those relating to treatment compliance, help seeking in response to disease exacerbation and activities to adapt to the limitations posed by HF.

The psychometric properties of the EHFScBS have been tested in different populations. The original version, which was developed in Dutch, has been tested in European countries including the Netherlands, Sweden, and Italy (Jaarsma et al., 2003). The EHFScBS was reliable in each population group and in the entire sample. It also had good construct validity. The psychometric properties of EHFScBS were further tested in over ten other populations that had different linguistic characteristics such as the Spanish, Italian, English and Japanese populations (Gonzalez et al., 2006; Kato et al., 2008; Pulingnano et al., 2004; Shuldham et al., 2007). The Italian version of the EHFScBS had comparable psychometric properties to the original version. The Spanish version was sensitive at detecting better self-care behaviour in patients who had received a longer duration of follow-up care by a specialist nurse (Gonzalez et al., 2006). However, for the British version, it only demonstrated good test-retest reliability. Its internal consistency was fairly acceptable ($r = 0.69$), and the scale did not identify any difference in the self-care behaviour between patients of different sex, age and NYHA functional class (Shuldham et al., 2007). The authors commented that there was a need for the EHFScBS to be culturally specific. In Asia, the EHFScBS appears to be culturally relevant. The scale has demonstrated adequate internal consistency and test-retest reliability in Japanese CHF patients (Kato et al., 2008). This Japanese version also had good construct validity, as it depicted the relationship between self-care and self-care agency (a construct refers to one's inherent and acquired ability to perform self-care) as delineated by the Orem's (1995) Theory of Self-care Deficit (Kato et al., 2008).

Download English Version:

<https://daneshyari.com/en/article/1076785>

Download Persian Version:

<https://daneshyari.com/article/1076785>

[Daneshyari.com](https://daneshyari.com)