

ABSTRACT

Background: There are several instruments to evaluate how type 2 diabetic patients perform self-management activities. However, little attention has been devoted to instruments assessing barriers that prevent patients from undertaking self-management activities.

Aim: The aim of this study was to develop an instrument to assess self-management barriers among patients with type 2 diabetes that can help health care providers, researchers and other stakeholders to understand the barriers of self-management in order to design appropriate interventions and give necessary support.

Methodology: A mixed-method approach using an exploratory sequential design was used. In the first phase, the study started with an integrative review from low-income countries and low-middle-income countries and a descriptive qualitative study conducted in 10 hospitals in Rwanda. They served to develop the new instrument. The content of the instrument was validated by 10 experts who established the Item Content Validity Index (I-CVI) and four patients who assessed the face validity. Similarly, 18 nurses and 2 medical doctors assessed its applicability in the clinical setting. In phase three, a descriptive cross section study was conducted and recruited 650 patients with type 2 diabetes from 10 hospitals to establish the construct validity. The Exploratory Factor Analysis (EFA) with Principal Component Analysis (PCA) was done to extract the appropriate number of factors.

Findings: The results of 25 articles from the integrative review and 23 individual interviews served to develop the pool of items. From an initial pool of 105 items, 63 were validated by experts with mean I-CVI ranging between 0.90-1. After the clinical utility study, one item was split into two bringing the number of items to 64. The EFA confirmed 51 items of Likert scale with 4 scores from strongly disagree = 1 to strongly agree = 4. The items loaded under nine factors explaining total variance of 53.8% with a factor loading ranging from .411- .710. The instrument was reliable with alpha Cronbach of .936 ranging from .601- .852 for each factor.

Conclusion: With regard to the results, the instrument developed was valid and reliable for assessing self-management barriers of type 2 diabetic patients in Rwanda. The findings of this research can help policy makers, researchers, health care providers and other stakeholders in planning, to enable the self-management activities as the most vibrant feature in diabetes management.

Key words: instrument, barriers, type 2 diabetes mellitus, self-management, Rwanda