Psychometric properties of the acceptance and action questionnaire (AAQ II) Malay version in cancer patients

Nurul Izzah Shari1,*, Nor Zuraiida Zainal2,*, Ng Chong Guan2,†, Zuraiida Ahmad Sabki3,*, Nor Aziyan Yahaya3

1 Lifestyle Science Cluster, Advanced Medical and Dental Institute, Universiti Sains Malaysia, Kepala Batas, Malaysia, 2 Department of Psychological Medicine, Faculty of Medicine, University Malaya, Kuala Lumpur, Malaysia, 3 Department of Nursing Sciences, Faculty of Medicine, University Malaya, Kuala Lumpur, Malaysia

* These authors contributed equally to this work.
† These authors also contributed equally to this work.
* izza_jesca@yahoo.com

Abstract

Psychological inflexibility has been found as one of the predictor to psychopathology in cancer patient. Cancer patients tend to experience psychological inflexibility as a reaction to cancer diagnosis, prognosis and treatment. Therefore, there is a need to identify psychological inflexibility due to its impact on quality of life among cancer patients.

Objectives

Acceptance and action questionnaire (AAQ II) is a scale used to assess psychological inflexibility. The aim of this study is to translate AAQ II into Malay language and evaluate the psychometric properties of AAQ II Malay version.

Methods

The AAQ II which has been translated into Malay language via back translation procedure was distributed to 101 cancer patients and 100 non-cancer patients. The evaluation of psychometric properties in this study included content validity index, internal consistency, parallel reliability, exploratory factor analysis, concurrent validity, sensitivity and specificity of AAQ II Malay version.

Results

AAQ II Malay version has established good content validity index, acceptable internal consistency with Cronbach's alpha value of 0.91, excellent parallel reliability and adequate concurrent validity. Exploratory factor analysis (EFA) results demonstrated AAQ II Malay version is a unidimensional factor instrument. The result of sensitivity and specificity of AAQ II Malay version indicated cancer patients who scored more than 17.5 were having significant psychological inflexibility.
Conclusion

AAQ II Malay version is a reliable and valid instrument to measure psychological inflexibility among cancer patient in Malaysia.

Introduction

Acceptance and action questionnaire (AAQ II) is an instrument to assess experiential avoidance and psychological inflexibility. Experiential avoidance can be defined as an attempt to avoid or neglect unpleasant thought, unpleasant feelings, bitter memories, uncomfortable physical sensations, and consequently lead to an action that is against one’s values and causing long-term harm [1]. Empirical evidence has found contribution of experiential avoidance on psychopathology in cancer patients [2,3]. Cancer patients commonly experienced experiential avoidance as a reaction to cancer diagnosis, prognosis and treatment [4]. Experiential avoidance is found to be one of the coping strategies among cancer patients and become a predictor to psychosocial problem such as depression, anxiety and distress [5,6]. The attempts to avoid the unpleasant thought, feeling and memories related to cancer elevate their discomfort and lead to the lack of involvement in their valued activities and life. As a result, this circumstance becomes the source of psychosocial and emotional issues such as distress, anxiety and depression [7]. Hence, it affects their quality of life [2,3], perceived health, psychosocial life [2] and career [8].

Meanwhile, psychological inflexibility refers to rigid psychological reaction against one’s value in order to avoid distress, uncomfortable feeling and thought and tend to ignore the present moment [9]. Psychological inflexibility has been suggested as an important element in the etiology and the preservation of psychopathology [10,11]. Psychological inflexibility has positive correlation with symptoms burden that commonly experienced by cancer patient including pain, fatigue, sleep disturbance, cognitive concerns, anxiety, and depressive symptoms. The increase of psychological inflexibility among cancer patient will heighten their symptom burden and leads to the lack of engagement with valuable activities and relationship [12]. In contrast, psychological flexibility is the ability to fully experience present moment that includes one’s thoughts and feelings without struggling to control or change it, and the ability to either persist or change behavior in the given context that is consistent with one’s values and goals [10]. Individual who is psychologically flexible able to disengage with unworkable thought and actions, enjoy the present moment, accept the thing and circumstance that beyond control, and choose to live in held values and move closely to those values [13]. Psychological flexibility is important element in cancer survivorship particularly in prevent enhancement of psychological problems such as anxiety, depression and negative affect [14].

Previous studies demonstrated that AAQ II is the most widely used instrument to measure the effectiveness of Acceptance and Commitment Therapy (ACT) due to its high reliability, validity and sensitivity to identify changes in experiential avoidance [15–17]. ACT is a psychological intervention that specifically developed to manage experiential avoidance and encourage psychological flexibility.

Measurement of experiential avoidance

AAQ II is a revised version of original version of AAQ due to its limitations. The original version of AAQ consists of 16 items and 9 items (two versions). The usage of AAQ was proven useful to measure psychological inflexibility and to predict the quality of life with average effect size in the

PLOS ONE | https://doi.org/10.1371/journal.pone.0212786 | February 26, 2019