Factorial Validity And Reliability Of The Simplified-Chinese Version Of Snaith-Hamilton Pleasure Scale: A Study Among Depressed Patients At An Out-Patient Clinic In Malaysia
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ORIGINAL ARTICLE

FACTORIAL VALIDITY AND RELIABILITY OF THE SIMPLIFIED-CHINESE VERSION OF SNAITH-HAMILTON PLEASURE SCALE: A STUDY AMONG DEPRESSED PATIENTS AT AN OUT-PATIENT CLINIC IN MALAYSIA

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Abstract

Objective: **The Snaith-Hamilton Pleasure Scale (SHAPS) is a self-assessment scale designed to evaluate anhedonia in various psychiatric disorders. To facilitate its use in Malaysian settings, our current study aimed to examine the validity of the Simplified-Chinese translated version of the SHAPS (SHAPS-SC) in a group of subjects at a university out-patient clinic.** ***Method:*** **A total of 40 depressed patients were recruited in this cross sectional study. They were given both the Simplified Chinese and Malay versions of SHAPS, General Health Questionnaire 12 (GHQ-12) and Beck Depression Inventory (BDI) to assess their hedonic state, general mental health condition and level of depression.** ***Results:*** **Our study showed that SHAPS-SC had impressive internal consistency (Cronbach's alpha 0.84) and concurrent validity, and fair parallel-forms reliability (Pearson's correlation 0.39).** ***Conclusion:*** **SHAPS-SC demonstrated good psychometric properties in the evaluation of hedonic state among a group of Chinese speaking depressed patients in an out-patient setting. It is easy to administer and suitable as a valid and reliable questionnaire in assessing anhedonia among depressed patients in Malaysia.** ***ASEAN Journal of Psychiatry, Vol. 15 (1): January – June 2014: 66-71.***

Keywords: Depression, Chinese Version, Pleasure Scale, Validation

Introduction

Anhedonia is found to be a major end phenotype[1] and often recognized as the core symptom in the psychopathology of major depressive disorder (MDD). It is defined as the loss of ability to experience pleasure due to dysfunction or impairment of normal psychological and neurobiological mechanisms. In the Diagnostic and Statistical Manual of Mental Disorders, Fourth edition (DSM-IV), a diagnosis of MDD requires that either depressed mood or anhedonia to be present [2].However, hedonic capacity frequently receives little research attention, as it is often excluded from many studies in favour of other measures of depression severity.

In depression research, many instruments and scales were shown to be useful, among the more common ones were Snaith–Hamilton Pleasure Scale (SHAPS) [3], Fawcett-Clark Pleasure Scale (FCPS) [4], and the Revised Chapman Physical Anhedonia Scale (CPAS)[5]. However, of all the assessment tools used, SHAPS demonstrated the highest factor loading in defining hedonic capacity

amongst the three scales[6]. SHAPS is essentially a 14-item, self-report instrument developed in 1995, to assess hedonic capacity, with its additional merit over other similar scales of keeping biases in terms of age, cultural and gender differences to a minimum [3].It not only measures hedonic tone, but also its absence, ie. anhedonia. Four major domains are covered in the scale, namely interest/pastimes, social interaction, sensory experience, and food/drink. All these items are crucial and relate closely to the experiences likely encountered by the majority in a population. As a self-assessment tool, language becomes the determining factor in deciding its simplicity and ease of use especially amongst the local population. Over many years, the scale had been translated into many other major languages in different countries, including French [7], German [8], Dutch [9] and Japanese [10]. All these translated versions of SHAPS had shown great psychometric properties with good clinical applicability. Malaysia is a multi-ethnic country and Chinese language is one of the major languages used in Malaysia, it is therefore very essential to provide our local patients with a Simplified-Chinese translated version of the SHAP scale (SHAPS-SC, see Appendix 1) when assessing their hedonic state. Hence, we conducted our study mainly to validate the Simplified version of SHAPS among a group of outpatients at a clinic in Malaysia, and to ascertain its psychometric properties, particularly its internal consistency, parallel-forms reliability and concurrent validity.

Methods

Study design

This is a cross sectional study conducted at the psychiatric out-patient clinic, University Malaya Medical Centre, Kuala Lumpur, Malaysia from Mac 2013 to Jun 2013. The study protocol was approved by the Medical Ethic Committee (MEC), University Malaya Medical Centre. Patients with major depressive disorder were identified by the treating psychiatrist according to the DSM-IV-TR criteria [11] in the clinic. They were approached and explained about the study. Those who were bilingual (Bahasa Malaysia and Chinese) and agreed to participate were recruited into the study. Socio-demographic information of the patients (age, gender, ethnicity, education and employment status) was collected. They were then given the following questionnaires for the assessment of their hedonic states, general mental health conditions and levels of depression.

The Assessment Questionnaires

Malay Version of Snaith-Hamilton Pleasure Scale (SHAPS-M)

Snaith-Hamilton Pleasure Scale (SHAPS) is an instrument developed for the assessment of hedonic capacity. It is a self-report scale containing 14 items. Each of the items has a set of four response catogories: Definitely Agree, Agree, Disagree, and Definitely Disagree; with Definitely Disagree response receiving a score of 1 and Definitely Agree response receiving a score of 4. Thus, the SHAPS is scored as the sum of 14 items so that total scores range from 14 to 56. A higher total SHAPS score indicates lower level of anhedonia.

The original SHAPS was translated into Malay language. The validity and reliability of the translated version (SHAPS-M) were established in a previous study. SHAPS-M exhibited good internal consistency, with Cronbach's alpha coefficient of 0.96. Parallel-forms reliability of SHAPS-M and original version of SHAPS was fairly good as demonstrated by Pearson's correlation (r) of 0.65 (p<0.01). The excellent internal consistency of this instrument indicated a high level of homogeneity among items in the scale.

The Malay version of the Beck Depression Inventory (BDI)

BDI is a 21-question multiple choice self-report inventory developed by DR. Aaron T. Beck in 1961. It is used to measure the degree of depression which includes the intensity, severity, and depth of depression. The items are score on a Likert scale ranged from zero to three, which denote the severity of symptoms. Items 1 to 13 evaluate psychological symptoms, while items 14 to 21 evaluate physical symptoms. The total BDI score shows the degree of depression. The higher score indicate more severe depression. The validity

and reliability of the Malay version of the BDI had been established [12]. The internal consistency of the Malay version of the BDI was high (Cronbach's alpha =0.87) indicating a high level of homogeneity among items in the scale.

The Malay version of the General Health Questionnaire-12

The Malay version of the GHQ12 is the Malay translated version of the original GHQ12. It is a 12-item measure of current mental health. It focuses on two major areas which are the inability to carry out normal functions and the appearance of new and distressing experiences. The items are rated on a 4-point Likert scale with the higher scores yield a greater severity. The validity and reliability of the Malay version of the GHQ12 has been established [13]. The internal consistency was relatively high with a Cronbach's alpha value of 0.85.

The Malay version of SHAPS was translated into the Simplified-Chinese language by two authors who were bilingual (Malay and Chinese). Another two different authors, who were also bilingual, then back-translated the SHAPS from Simplified Chinese to Malay version, following the back-translation technique [14]. The translated version was pilot tested among 20 Chinese speaking students for face validity. In the Malay translated version, item 8 "I would enjoy looking smart when I have made an effort with my appearance" was revised to "I would enjoy in cleaning and tidying my room" to suit the Malay speaking population culture. However, in the current Simplified Chinese version, the original item 8 was remained. Based on the popularity and current habit of "Internet surfing", it was added into item 9 "I would enjoy reading book, magazine or newspaper". The finalized version was further reviewed by two consultant psychiatrists for content validity and to ensure satisfactory face, semantic, criterion and conceptual equivalence [15]. All the 40 subjects who consented for the study were given the following questionnaires to be completed: 1. Malay version of SHAPS (SHAPS-M); 2. Simplified Chinese version of SHAPS (SHAPS-SC); 3. Malay version of GHQ; and 4. Malay version of BDI.

Statistical Analysis

The results were analyzed using the Statistical Package for Social Sciences version 13.0. The descriptive statistics were used to examine the baseline characteristic data. The internal consistency of the SHAPS-SC was assessed using the Cronbach's alpha coefficient. Pearson's correlation (r) was used to examine the parallel reliability between SHAPS-SC with the Malay version of SHAPS; and the concurrent validity between the SHAPS-SC with Malay version of GHQ and BDI.

Results

A total of 40 depressed patients consented for this study. The mean age was 45 years old and most of them were female. All the study subjects were Chinese. Half of the participants were married and achieved at least secondary level of education. Most of them were employed (Table 1).

Table 1. Socio-demographic characteristics of the study subjects

Socio-demographic characteristics	Subjects with depression (N = 40)
Age (years), Mean (sd)	45.28 (14.89)
Gender, n (%)	
Male	14 (35.0)
Female	26 (65.0)
Race, n (%), Chinese	40 (100.0)
Marital status, n (%)	
Single	14 (35.0)
Married	20 (50.0)
Divorced/widowed	6 (15.0)
Education, n (%)	
Primary	5 (12.5)
Secondary	16 (40.0)
Tertiary	18 (45.0)
None	1 (2.5)
Occupation, n (%)	
Employed	21 (52.5)
Unemployed	19 (47.5)

Table 2. Correlation (Pearson's rho) between the Simplified Chinese version of SHAPS (SHAPS-SC) and the Malay version of SHAPS (SHAPS-M), GHQ and BDI

	TotalSHAPS-SC	TotalSHAPS-M	TotalGHQ	TotalBDI
TotalSHAPS-SC	1	0.393*	0.511**	0.290***
TotalSHAPS-M	0.393*	1	0.290	0.356*
TotalGHQ	0.511**	0.290***	1	0.664**
TotalBDI	0.290	0.356*	0.664**	1

SHAPS = Snaith-Hamilton Pleasure Scale,GHQ = General Health Questionnaire,BDI = Beck Depression Inventory, * $p<$ 0.05, ** $p<$ 0.01, *** $p<0.1$

SHAPS-SC exhibited good internal consistency, with Cronbach's alpha coefficient of 0.84. The parallel-forms reliability of both SHAPS-SC and SHAPS-M was positive and fair as demonstrated by Pearson's correlation (r) of 0.39 ($p<0.01$). The low level of parallel reliability was mainly due to the modifications of the items in the SHAPS-SC. There were associations between the anhedonic level with the general health condition and depressive level among the study subjects. These were shown in the result where the SHAPS-SC was positively correlated with GHQ ($r = 0.51$, $p<0.01$) and BDI ($r = 0.29$, $p<0.1$) (Table 2).

Discussion

The current cross-sectional study among 40 depressed patients showed that the translated Simplified Chinese version of SHAPS yielded sound psychometric properties in terms of its validity and reliability as an instrument to assess the hedonic state among Malaysian subjects at a university out-patient clinic. Parallel-forms reliability was noted to be fair and its homogeneity among the items which was reflected by its high Cronbach's alpha value had clearly demonstrated the excellent internal consistency of this translated scale.

In order to minimize bias in social class, gender, age, dietary habits and nationality [3], the construct of SHAPS-SC contained items which were generally more relevant and had a wider range of applicability. SHAPS-SC also appeared to be more relevant when used among patients in depressive states as it was a state-level scale which assessed the hedonic capacity based on "experience in the last few days" [6]. Despite the good psychometric properties of SHAPS-SC, our study was hampered by some limitations which should be highlighted. First, being a cross sectional study, there was a higher tendency of recall bias especially during data collection. Second, clinical information about the depressed patients participating in this study was not presented. In general, SHAPS is not suitable for subjects who are physically ill, as the ability to experience pleasure is definitely an important aspect of the concept of "quality of life"; and the scale is also not valid for blind subjects, as four of the items depend upon visual experience. Finally, our sample size was small and this could have restricted the result from being generalized to an actual clinical sample. Nevertheless, despite all the limitations, the result of our study was still very significant. As for future research, we shall be comparing the anhedonic level between depressed patients and healthy control subjects to determine the cut-off level of the scale.

In conclusion, we found that SHAPS-SC was not only easy to administer, but it was also a reliable and valid assessment tool in measuring the hedonic state among Chinese speaking Malaysians with depressive disorder.

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Appendix 1

斯奈思 - 汉密尔顿愉悦量表

		1=绝对同意	**2=同意**	**3=不同意**	**4=绝对不同意**
1	我会 享受我最喜欢的电视或收音机节.				
2	我会享受和我的家人或亲密的朋友在一起.				
3	我会在我的业余爱好和消遣中找到乐趣.				
4	我 能够享受我最喜欢的食物.				
5	我会享受洗个热水澡或令人清新的淋浴.				
6	我会在花的芳香或清新的海风或新鲜出炉的面包的气味中找到乐趣.				
7	我会享受看到别人的笑脸.				
8	我会享受我美观的外表当我已经在我的外表下了很多工夫.				
9	我会享受阅读书籍，杂志或报纸.				
10	我会享受饮用一杯茶或咖啡或我最喜爱的饮料.				
11	我会找到乐趣在小的事情，例如阳光明媚的一天，一个朋友打来的电话.				
12	我会享受一道美丽的风景或景象.				
13	我会从帮助他人中得到快乐.				
14	我会感到高兴当我得到他人的赞美.				