PSYCHOLOGICAL MEDICINE

Validation of Malay Beck Cognitive Insight Scale (BCIS)

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ABSTRACT

Background: **Although the dominant current viewpoint of insight is related to clinical insight, cognitive insight has been gaining popularity since the introduction of Beck Cognitive Insight Scale (BCIS) in 2004. Therefore, an easy and reliable assessment tool of cognitive insight is needed to complement the assessment of clinical insight to improve the psychiatric services and outcomes.**

Objectives: **This study aimed to validate the Malay Beck Cognitive Insight Scale (BCIS-M).**

Methods: **The BCIS was translated into Malay language with good face and content validity. It was administered to 75 patients with schizophrenia in psychiatric outpatient clinic, Hospital Universiti Sains Malaysia (HUSM) in April 2014.**

Results: **The BCIS-M showed good psychometric property. The internal consistency (Cronbach alpha) for self-certainty and self-reflectiveness in this study were 0.609 and 0.699, respectively.**

Conclusion: **The BCIS-M is a valid and reliable tool for assessment of cognitive insight in local Malaysian population.**

KEY WORDS

validation, Malay, cognitive insight, schizophrenia, BCIS

INTRODUCTION

Schizophrenia, a stigmatized illness in some parts of the world especially in developing countries, is a chronic psychiatric disorder which usually affects about 1% of the population. It is severe enough to impact on functional areas like independent living, marriage, social and also occupational functioning[1)](). The disease itself has been argued to be a spectrum of symptoms displayed against what the normal population considers as inappropriate or abnormal. These symptoms include aberrations in thoughts, perceptions, emotion, behaviour and also cognitive functions. When cognitive functions like memory, attention and judgment are impaired; improvement in illness is impeded and relapses become more frequently common.

As our current trend is moving towards deinstitutionalization while strengthening our delivery of community psychiatry service, frequent relapses and hospitalizations are not helping our aim to achieve a stable group of psychiatric patients to be treated in society. Some patients have been treated to the extent that they are aware of their illness but yet a relapse could still occur despite being deemed to have good insight. Having an insight is commonly defined as possessing the ability to recognize that a mental disorder is present, understand that delusions and hallucinations are signs of mental illness and realize the need for treatment[2)](). The term "clinical insight" usually denotes this. Although the blame for relapse is often put on poor medication adherence due to lack of insight and a fair share of observations accounted for this relationship, theories have also been growing that there are possibly other aspects of insight that clinicians might be unaware of and left untackled. This then leads to the endless cycle of relapses in schizophrenia despite some patients clinically labelled as having good insight.

In 2004, Beck et al. popularized the idea of cognitive insight with the introduction of Beck Cognitive Insight Scale[3)](). This is conceptually different from clinical insight but is said to be occurring in a similar spectrum of insight. Garety *et al* had found that patients with schizophrenia who agreed that they could be wrong in their beliefs, showed better improvement in treatment outcome when psychological approach such as cognitive behavioural therapy (CBT) was given, as opposed to the other group of patients who were unshakable in their beliefs and received the same psychological approach[4)](). This finding was later realized to be linked to "cognitive insight", a term gaining ground only as recent as 2004. Since then BCIS has been translated and validated in several languages including Norwegian[5)](), French[6)]() and Tamil[7)](). This study, aimed to translate and validate the scale in local population. This would allow more studies to be conducted in this exciting area of research.

METHODS

Participants

The study protocol was approved by the Human Research Ethics Committee (USM/JEPeM/282.3(8) and Medical Research Ethics Committee (NMMR-13-1184-18386). Eligible subjects gave their written informed consent after the nature of the study was explained. Data were collected from 75 patients aged 18-65 with DSM-IV-TR diagnosis of schizophrenia attending the outpatient psychiatric clinic, Hospital Universiti Sains Malaysia in April 2014. All the participants were stable (no admission in the past 6 months), cooperative, literate and able to understand the Malay language.

Table 1. Internal consistency of self-certainty and self-reflectiveness domain of Malay BCIS

Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self-certainty		
Q2	0.318	0.575
Q7	0.489	0.500
Q9	0.247	0.602
Q10	0.396	0.544
Q11	0.387	0.546
Q13	0.225	0.612
Self-reflectiveness		
Q1	0.451	0.658
Q3	0.384	0.671
Q4	0.257	0.696
Q5	0.465	0.654
Q6	0.651	0.613
Q8	0.581	0.632
Q12	0.143	0.710
Q14	0.110	0.726
Q15	0.351	0.677

Cronbach alpha for self-certainty = 0.609 and self-reflectiveness = 0.699

Instrument

a) Beck Cognitive Insight Scale (BCIS) - Malay version

The original version of BCIS was introduced by Beck *et al* in 2004 to assess cognitive insight. This is a self-rated scale to evaluate patients' self-reflectiveness and extent of their overconfidence or self-certainty in their experiences and thoughts measured on a Likert scale. Each item is rated as "do not agree", "agree slightly", "agree a lot" and "agree completely" with each of these ratings given a score of 0, 1, 2 and 3 respectively. In total, there are 15 items to be assessed.

Out of 15, nine items assess self-reflectiveness (items 1, 3, 4, 5, 6, 8, 12, 14 and 15) while another six are under self-certainty sub-domain (items 2, 7, 9, 10, 11 and 13). The self-reflectiveness domain assesses openness to feedback, criticism and willingness to consider alternative explanations to unusual experiences. A maximum possible score of 27 is allowed. The self-certainty items assess the extent of being overconfident with one's belief, where higher scores mean a lesser chance for delusion to be modified. This domain has a maximum possible score of 18. High self-reflectiveness and low self-certainty are considered normal[3,8-10].

To balance these two domains, a composite index is calculated to represent overall cognitive insight. This is obtained by subtracting self-certainty scores from self-reflectiveness scores. A low composite score reflects poor cognitive insight. As of date, there is no common acceptable cut-off point to determine normal or abnormal scores of cognitive insight. There is also no other comparable tool that measures cognitive insight.

The researcher managed to obtain the consent to translate the scale from the original author. Forward and back translation process of the BCIS was independently carried out by 2 sets of bilingual translators comprised of a psychiatrist and linguist. The forward and back translated versions were reviewed and amended to improve the semantic accuracy while maintaining the intended original meaning of the English version. This amended scale was then agreed upon in consensus by the expert team to have good content validity. The scale was then pre-tested on a group of ten patients with schizophrenia to assess its face validity. All patients agreed that the questions appeared to be measuring what it was supposed to measure. Hence, the finalized Malay version of Beck Cognitive Insight Scale (BCIS-M) was deemed to have satisfactory semantic and conceptual equivalence with the original version as well as good face and content validity

Table 2. Comparison of BCIS internal consistencies in different languages

Language	Self-certainty	Self-reflectiveness
Malay	0.609	0.699
English (Beck *et al*., 2004)	0.610	0.670
Norwegian (Jónsdóttir *et al*., 2008)	0.630	0.720
French (Favrod *et al*., 2008)	0.620	0.730
Tamil (Merlin *et al*., 2012)	0.610	0.650

RESULTS

Psychometric properties

Cronbach alpha for self-certainty and self-reflectiveness in this study were 0.609 and 0.699, respectively (table 1). Although, there are differing opinions regarding the appropriate level of Cronbach alpha, no fixed value has been agreed upon, although conventionally the acceptable range is usually from 0.6 to 0.7 and above[11]. Above 0.7 was considered good and commonly quoted in research based on an earlier recommendation by Nunally[12]. Overall, the reliability of the Malay version was comparable to the original English version where the value stood at 0.61 for self-certainty and 0.67 for self-reflectiveness in patients with schizophrenia[3]. Other translated works also produced values of similar ranges (table 2).

In this reliability analysis, when deletion of items occurred, the majority of Cronbach alpha showed a reduction in alpha values as opposed to only three items showing a small, negligible increment in alpha values. Hence, to maintain conceptual accuracy, all items were retained for use in the translated questionnaire. Overall, this preliminary work thus showed that the BCIS-M is reliable and acceptable as a research tool.

DISCUSSION

Cognitive insight measures the ability of patient's higher mental functioning to assess and re-evaluate their distorted thoughts and beliefs, their openness to criticism, and how firmly they believe in their delusions[3]. Thus, patients with a high level of psychosis are expected to have lower cognitive insight but this relationship has been inconclusive somewhat. Other factors could have played a role in determining good cognitive insight and as to our understanding, the evaluation and correction of these pathological symptoms require good cognition to perform the reappraisal and avoid misinterpretation.

A good clinical insight may also not necessarily be translated into good cognitive insight. Some patients may agree that they are mentally ill and the unusual experiences are due to mental disorder but without themselves being convinced of this[3]. Assessment on cognitive insight can thus complement clinical insight to make the usual insight evaluation more comprehensive and representative of an individual's mental state. This is a good step to bring the patient to a more serious level of recovery by ensuring successful adherence to treatment and continuous engagement in a therapeutic doctor-patient partnership. Negative emotions like frustrations, helplessness and anger from the frequent relapses could also be minimized.

Availability of validated scale to measure cognitive insight would complement the assessment of clinical insight. More knowledge about cognitive insight can be gained by using appropriate investigative tools. Specific cognitive remediation therapies could later be formulated, suggested or devised to enhance neurocognitive abilities in order to improve cognitive insight. Better cognitive insight inevitably helps elevate patient's potential functional outcome by achieving greater adherence to medication, therapies and simultaneously reducing relapses that have been linked to treatment non-compliance. Further, poor or negative caregiving experiences could lead to lower perceived social support by patients[13]. On the other hand, good or positive caregiving experiences potentially improve the prognosis of patients with schizophrenia.

CONCLUSION

The Malay version of the Beck Cognitive Insight Scale (BCIS) has good internal reliability and suitable for local use. This instrument would enable researchers to further investigate cognitive insight in schizophrenia and its associated factors in future study.

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