Knowledge in schizophrenia: The Portuguese version of KAST (Knowledge About Schizophrenia Test) and analysis of social-demographic and clinical factors' influence

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ABSTRACT

Schizophrenia is a complex disorder, and the knowledge about it can have a positive impact. The purpose of this study was to make the translation and cultural adaptation of the Knowledge About Schizophrenia Test (KAST) into Portuguese and determine the influence of clinical and socio-demographic factors on knowledge. The test was applied to 189 caregivers of patients enrolled in Schizophrenia Program of the Federal University of São Paulo, 30 caregivers of clinical patients of the General Outpatient Clinic of the same University, and 30 health professionals. The face and content validity of the test was established. The mean value (SD) obtained with the application of the final version to caregivers of schizophrenic patients was 12.96 (2.45) — maximum 17. Level of knowledge increased considering the following order: caregivers of clinical patients, caregivers of patients with schizophrenia and mental health professionals. The intraclass correlation coefficient (0.592) obtained in the test–retest was statistically significant. An influence of social class, race, gender and education of the caregiver on the test was observed, and the last two factors were more relevant. The KAST translated and adapted into Portuguese is a valid instrument and can be used as an evaluation tool on psychoeducational interventions.

1. Introduction

Schizophrenia is a chronic, complex, multifactor disorder that impacts the lives of patients, families, and the society in general (Lieberman, 1999). It affects approximately 1% of the population (Saha et al., 2005), and can evolve with relapses when there is lack of insight of the disorder and lack of adherence to treatment (Olivares et al., 2013). It represents an important burden to caregivers, and the experience of stigma is still a reality in the lives of patients and families. According to the World Health Organization, schizophrenia, due to its early onset and functional limitations characteristics, is the 8th main cause of DALYs (Disability Adjusted Life Years) (Mathers et al., 2006).

Several studies describe the importance of improving the knowledge about schizophrenia in patients and caregivers through psychoeducation strategies. These family interventions are psychoeducational and aim to change the behavior of patients and caregivers by improving their knowledge so they are better able to cope in a more effective way with their illness. Although the content of psychoeducational interventions varies among the studies, most include: general

information on schizophrenia, symptoms, treatment, problem-solving strategies and communication skills for patients and caregivers (Hasan et al., 2014).

A recent review published by Cochrane analyzed 44 studies of psychoeducation intervention for schizophrenia published between 1988 and 2009 with a total of 5142 individuals. A better knowledge on the disorder results in fewer relapses, fewer hospital readmissions, fewer hospitalization days, and improved adherence to medication. In addition to clinical improvement, better social and global functioning, better quality of life and greater satisfaction with mental health services were observed. Therefore, psychoeducational interventions can be considered effective justifying more studies on this practice (Xia et al., 2011).

The purpose of psychoeducation is to increase patients' knowledge and understanding of their illness and treatment. Moreover, the knowledge about schizophrenia is a construct with important applicability, which justifies the use of instruments that measure it on clinical practice (Ascher-Svanum, 1999).

The purpose of this study was to make the translation, cultural adaptation and validation of the Knowledge About Schizophrenia Test (KAST) (Compton et al., 2007) into Portuguese and determine which clinical and socio-demographic factors could affect the level of knowledge measured by the test.

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2. Methodology

2.1. Choice of the instrument

The choice of the Knowledge About Schizophrenia Test was made because it is a brief test (18 items in the original version), multiple-choice, self-reported and with the possibility of being applied to caregivers of patients with schizophrenia, mental health professionals, and the population in general. The solid psychometric properties in the original version and its good applicability also justified our choice.

2.2. Translation and adaptation

For the translation and adaptation of the test we followed the guidelines described by Beaton et al. (2000). First, we requested authorization from the author of the original test. Next, the translation was made by two psychiatrists specialized in schizophrenia — Brazilians with fluent knowledge of Portuguese and English, the original language of the test. A translation of the test was derived from the discussion between the translators. The original test and the translation were reviewed by a committee composed of three other psychiatrists specialized in schizophrenia, and Brazilians with fluent knowledge of Portuguese and English, as for the adequacy of the terms used and the items evaluated, considering the cultural context. The pre-final version was answered by 10 caregivers to evaluate the cultural adaptation of the test. After that we made the final version of the test in Portuguese.

2.3. Validation and reproducibility

2.3.1. Sampling

A convenience sampling was selected, with 189 caregivers of outpatients of the Schizophrenia Program of the Federal University of São Paulo diagnosed with schizophrenia according to the criteria of the DSM IV (American Psychiatric Association, 2000). Caregiver was defined as the person belonging to the informal support system of the patient, who cares for and is responsible for the patient and who dedicates most of their time to this activity without receiving any form of financial compensation for it (Caqueo-Urízar et al., 2009). A single caregiver was considered for each patient enrolled in the study, considering the closeness with the patient and the direct involvement in the patient's treatment. Caregivers who were literate and had enough capacity of understanding, as assessed by the researcher, were considered appropriate to participate in the study.

2.3.2. Questionnaires

Caregivers of patients enrolled in the Schizophrenia Program of the Federal University of São Paulo answered the questionnaires with an instruction sheet during their visits to the Program while the patient attended a regular visit. Caregivers were instructed to answer the questionnaires without help of others. The response period was from August 2012 to August 2013. After being filled out, the questionnaires were checked by the researcher. Any missing data in the questionnaires were obtained on a second approach made in person or by telephone within 30 days. In addition to KAST, socio-demographic data were collected from the caregiver and patient: gender, age, race, degree of relatedness, marital status, education, monthly income, employment situation and social class (ABEP, 2011). ABEP (Associação Brasileira de Empresas de Pesquisa) is a research institute that publishes a social economic classification based on the head of the family's education as well consumer goods (television, cars, DVDs and others). Based on that, eight social classes are determined: A1, A2, B1, B2, C1, C2, D and E. Clinical data of the patients – duration of the disorder since the diagnosis, number of suicide attempts, number of hospitalizations and episodes of aggressive behavior (violent behavior against others) throughout life as well as the data of the current treatment (medications used and psychosocial intervention) – were obtained from the consented caregivers and recorded from patient charts.

2.3.3. Procedures for validation and reproducibility

The face and content validity of the test were established during the translation and cultural adaptation process.

In the lack of an instrument that could be considered the gold standard for the validation of the construct of the test, we asked caregivers to self-report their knowledge about schizophrenia on a scale of 0 to 10 — where 0 would be no knowledge and 10 would be high knowledge.

Also with the purpose of validating the construct, the test was applied to 30 caregivers of non-psychiatric patients (and with no contact with patients with schizophrenia) of the General Outpatient Clinic of the Federal University of São Paulo, chosen in a consecutive way, and to 30 mental health professionals (doctors, psychologists, occupational therapists and nurses) who work in the Schizophrenia Program of the Federal University of São Paulo, chosen by the convenience of the sample. The purpose was to compare the scores obtained in each group, expecting a crescent score considering the following order: caregivers of clinical patients, caregivers of patients with schizophrenia, and specialized professionals.

The reproducibility of the test was evaluated by repeating the application after 30 days of the first application to 50 individuals of the original group randomly chosen (test–retest). All individuals were assigned a number and 50 of them were drawn for the retest.

2.4. Statistical analysis

The variables were analyzed in the "*Statistical Package for the Social Sciences 19.0 (SPSS) for Windows*" (SPSS Inc., Chicago, Illinois). The descriptive analysis of the data was conducted, and an alpha significance level of 0.05 was defined for all statistical tests. The Spearman Correlation Coefficient was used to correlate the KAST score with the results obtained on the self-reported knowledge test; the Kruskal–Wallis test was used to verify the difference between the KAST scores obtained by caregivers of patients with schizophrenia, caregivers of non-psychiatric patients and mental health professionals, and the intraclass correlation coefficient was used to correlate the initial KAST score with the score after 30 days in the 50-individual sample. The Spearman Correlation Coefficient, the Kruskal–Wallis and Mann–Whitney tests were used to separately evaluate the influence of socio-demographic and clinical factors on the level of knowledge. The analysis of variance with four fixed factors was used to confirm the combined importance of the socio-demographic factors considered statistically significant in the univariate analysis.

2.5. Ethical aspects

The study was approved by the Research Ethics Committee of the Federal University of São Paulo. All participating caregivers signed a free and informed consent form, and the confidentiality of all study participants was guaranteed.

3. Results

3.1. Socio-demographic and clinical characteristics

Out of the 189 caregivers who participate in the Schizophrenia Program of the Federal University of São Paulo, 20 (10.5%) did not return the questionnaire; 8 (4.2%) chose not to participate and 2 (1%) were excluded because the questionnaires were incomplete.

The socio-demographic characteristics of the caregivers who completed the test and of the patients are presented on Table 1. The clinical characteristics of patients are on Table 2.