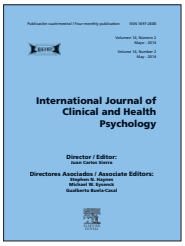
International Journal of Clinical and Health Psychology (2014) **14**, 128–136

ELSEVIER DOYMA

International Journal of Clinical and Health Psychology

www.elsevier.es/ijchp



ORIGINAL ARTICLE

Comparing neurocognitive impairment in schizophrenia and bipolar I disorder using the Screen for Cognitive Impairment in Psychiatry Scale☆

Juana Gómez-Benito[a,b], Georgina Guilera[a,b], Oscar Pino[a,c], Rafael Tabarés-Seisdedos[d,*], Anabel Martínez-Arán[e]

[a] *Universidad de Barcelona, Spain*
[b] *Institute for Brain, Cognition and Behavior (IR3C), Universidad de Barcelona, Spain*
[c] *Hospital General Granollers - Benito Menni CASM, Spain*
[d] *Universidad de Valencia, CIBERSAM, Spain*
[e] *Institute of Neuroscience, Hospital Clínic of Barcelona, IDIBAPS, CIBERSAM, Universidad de Barcelona, Spain*

Received May 22, 2013; accepted December 9, 2013

KEYWORDS
Cognitive impairment;
Screen for Cognitive Impairment in Psychiatry;
Schizophrenia;
Bipolar disorder;
Instrumental study

Abstract The purpose of this study was to compare the psychometric properties of the Screen for Cognitive Impairment in Psychiatry (SCIP) when applied to patients diagnosed with schizophrenia (n = 126) or bipolar I disorder (n = 76), and also to compare the cognitive impairment in both samples of patients and a control group (n = 83) using the SCIP and a complete neuropsychological battery. The SCIP is a scale intended to quickly and easily assess cognitive impairment in patients with severe psychiatric disorders. The results showed firstly that, in terms of internal consistency, temporal stability, dimensional structure, and criterion-referenced validity, the SCIP provides reliable and valid scores at an equivalent level in both schizophrenia and bipolar I disorder samples. Secondly, it showed that differential cognitive impairment between the two patient groups occurs only in verbal memory, although the effect

☆ In collaboration with the SCIP Research Group on Cognitive Function constituted by Miguel Bernardo (Institute of Neuroscience, Hospital Clinic i Provincial, IDIBAPS, University of Barcelona, CIBERSAM, Spain), Benedicto Crespo-Facorro (University Hospital Marqués de Valdecilla, IFIMAV, School of Medicine, University of Cantabria, Spain and CIBERSAM, Spain), Manuel J. Cuesta (Hospital Virgen del Camino, Spain), Manuel Franco (Hospital Provincial Rodríguez Chamorro, Spain), Juana Gómez-Benito (Faculty of Psychology, University of Barcelona, Spain and Institute for Brain, Cognition and Behavior (IR3C), University of Barcelona, Spain), Georgina Guilera (Faculty of Psychology, University of Barcelona, Spain and Institute for Brain, Cognition and Behavior (IR3C), University of Barcelona, Spain), Anabel Martínez-Arán (Institute of Neuroscience, Hospital Clinic of Barcelona, IDIBAPS, CIBERSAM, University of Barcelona, Spain), Oscar Pino (Faculty of Psychology, University of Barcelona, Spain and Hospital General Granollers - Benito Menni CASM , Spain), Scot E. Purdon (University of Alberta, Edmonton, Canada), Javier Rejas (Pfizer, S.L.U., Spain), J. Emilio Rojo (Hospital General Granollers - Benito Menni CASM , Spain), Nuria Segarra (Institute of Neuroscience, Hospital Clinic i Provincial, IDIBAPS, University of Barcelona, CIBERSAM, Spain), Rafael Tabarés-Seisdedos (University of Valencia, CIBERSAM, Spain) and Eduard Vieta (Institute of Neuroscience, Hospital Clinic of Barcelona, IDIBAPS, CIBERSAM, University of Barcelona, Spain).

*Corresponding author at: Universidad de Valencia, Centro de Investigación Biomédica en Red en el área de Salud Mental (CIBERSAM),Valencia, Spain.
E-mail address: rafael.tabares@uv.es (R. Tabarés-Seisdedos).

size of the difference is small. Finally, compared with the control group, cognitive impairment was present at all levels in both groups of patients using both the SCIP and the neuropsychological battery, which indicates that the SCIP is a good screening tool for cognitive deficits in schizophrenia and bipolar and useful in clinical practice for healthcare professionals.

PALABRAS CLAVE
Deterioro cognitivo;
Screen for Cognitive Impairment in Psychiatry;
Esquizofrenia;
Trastorno bipolar;
Estudio instrumental

Resumen El objetivo del estudio fue comparar las propiedades psicométricas del test *Screen for Cognitive Impairment in Psychiatry* (SCIP) en pacientes diagnosticados de esquizofrenia (*n* = 126) o trastorno bipolar I (*n* = 76). Además, el deterioro cognitivo se comparó con un grupo control (*n* = 83) empleando el SCIP y una batería neuropsicológica completa. El test SCIP es una escala que evalúa rápida y fácilmente el deterioro cognitivo en trastornos psiquiátricos graves. En términos de consistencia interna, estabilidad temporal, estructura dimensional y validez de criterio, el SCIP proporciona resultados al mismo nivel de fiabilidad y validez en pacientes con esquizofrenia o trastorno bipolar I. Además, demostró que el deterioro cognitivo diferencial entre los dos grupos de pacientes se produce solo en la memoria verbal, aunque el tamaño del efecto de esta diferencia es pequeño. Por último, y frente al grupo control, se confirma el deterioro cognitivo a todos los niveles en ambos grupos de pacientes utilizando tanto el SCIP como la batería neuropsicológica, lo que indica que el SCIP es una buena herramienta de detección para los déficits cognitivos en esquizofrenia y trastorno bipolar, y útil en la práctica clínica habitual para profesionales de la salud.

Several studies have shown that cognitive functions are impaired both in patients with schizophrenia and those with bipolar I disorder, and these impairments have a real impact on the daily functioning of patients with these disorders (Bowie et al., 2010; Tabarés-Seisdedos et al., 2008). The early detection of neurocognitive impairment is a challenge, particularly with respect to orientation of treatment (Balanzá-Martínez et al., 2010).

The Screen for Cognitive Impairment in Psychiatry (SCIP) (Pino et al., 2006; Purdon, 2005) was designed for detecting cognitive deficits in several psychotic and affective disorders. It may be administered without the need for additional equipment (only pencil and paper) and requires less than 15 minutes, which allows it to be easily administered in daily medical practice in different settings without an extra burden of administration. There are three alternative forms of the scale available to minimize learning effects in prospective evaluations. The SCIP consists of five brief peformance subtests including a Working Memory Test (WMT), a Verbal Learning Test-Immediate Recall (VLT-I), a Verbal Fluency Test (VFT), a Verbal Learning Test-Delayed Recall (VLT-D), and a Processing Speed Test (PST). The original SCIP version is in English. The origin and nature of the scale have previously been explained in detail both for the original instrument (Purdon, 2005) and for the process of translation and adaptation of the Spanish version (Pino et al., 2006). Recently, its psychometric properties have been validated in a sample of psychiatric patients with schizophrenia (Pino et al., 2008) or bipolar I disorder (Guilera et al., 2009). In addition, useful cut-off points have been established to facilitate the use of the SCIP in both clinical and research settings (Rojo et al., 2010), and a recent report has provided evidence that the SCIP may have better predictive value than other screening tools for detecting a global cognitive deficit (Cuesta et al., 2011).

The previous investigations of the psychometric properties of the Spanish version of the SCIP (SCIP-S) have provided empirical support for the validity and reliability of the test in schizophrenia (Pino et al., 2006) and bipolar I disorder (Guilera et al., 2009) patients, despite small differences in the values obtained with regard to internal consistency, temporal stability, dimensional structure and relationships with other variables. The study described below will discuss further the statistical equivalency of the psychometric properties of the SCIP-S with more direct comparisons between the values obtained from patients with schizophrenia or bipolar I disorder. The main aim is to determine whether the SCIP is equally reliable and valid for both psychiatric samples. The secondary aims would be to assess the value of the SCIP for detection of cognitive impairment in each psychiatric samples relative to a healthy control group, and to directly compare the psychiatric samples to assess any differences in the severity or the profile of cognitive deficits detected by the SCIP in each group in relation to the deficits detected by a more detailed neuropsychological examination.

Method

Participants

A total of 202 psychiatric patients participated in this study. The sample included 126 patients diagnosed with schizophrenia (73% men; mean age 36.66; *SD* = 8.38) and 76 with bipolar I disorder (45% men; mean age 40.30; *SD* = 8.98). The clinical sample was recruited through 40 outpatient psychiatric clinics across Spain. All patients were evaluated by experienced psychiatrists and met DSM IV-TR criteria (American Psychiatric Association, 2000) for