

The assessment of positive dimension of the psychosis phenotype in college students

Eduardo Fonseca-Pedrero^{a,c,*}, Mercedes Paino^{b,c}, Javier Ortuño-Sierra^a,
Serafin Lemos-Giráldez^{b,c}, José Muñiz^{b,c}

^aDepartment of Educational Sciences, University of La Rioja, Spain

^bDepartment of Psychology, University of Oviedo, Spain

^cCenter for Biomedical Research in the Mental Health Network (CIBERSAM), Spain

Abstract

The Wisconsin Schizotypy Scales are one of the most used measuring instruments for the assessment of psychometric risk for psychosis. The main goal of the present study was to analyze the reliability of the scores and to provide new sources of validity evidence for the brief version of the Magical Ideation Scale (MIS-B) and the Perceptual Aberration Scale (PAS-B). The final sample was comprised of a total of 1349 university students divided into two subsamples ($n_1 = 710$; $M = 19.8$ years; $n_2 = 639$; $M = 21.2$ years). Results show that both measurement instruments have adequate psychometric properties under Classical Test Theory and Item Response Theory. Internal structure analysis of MIS-B and PAS-B, through exploratory and confirmatory factor analysis, yielded an essentially one-dimensional solution. Cronbach's alpha coefficient for the total score of MIS-B ranged between 0.86 and 0.87, whereas for the PAS-B it ranged between 0.78 and 0.89. A total of 5 items showed a differential functioning for sex. The results indicate that the MIS-B and PAS-B are brief measurement instruments with adequate psychometric properties for the assessment of the positive dimension of the psychosis phenotype and could be used as screening tools in the detection of individuals at risk for psychosis in the general population.

© 2014 Elsevier Inc. All rights reserved.

1. Introduction

Schizotypy is a complex construct that is intimately related at historical, genetic, neurodevelopmental, neurocognitive, social, and psychophysiological levels to psychosis [1–4]. Independent follow-up studies indicate that individuals from the general population who report schizotypal experiences such as hallucinatory experiences and/or delusional ideation, have a greater risk of transitioning toward schizophrenia-spectrum disorders [5–10]. However, it is also true that recent studies indicate the low specificity of these experiences and that their evolution is limited not only to the formal diagnosis of psychosis, but also to other mental disorders (e.g., depression) [11]. Schizotypy dimensions are also considered a vulnerability indicator on examining

patients with schizophrenia [12], individuals at high genetic risk [13] and at clinical high risk for psychosis [14]. In that regard, schizotypal traits and experiences might represent the behavioural expression of latent vulnerability for psychotic disorders [15]. Healthy individuals who report schizotypal experiences and traits also present emotional, behavioural, neurocognitive, and/or social deficits [1,16–19] that are qualitatively similar, but less severe, than those found in patients with schizophrenia and schizotypal personality disorder. Moreover, the subclinical expression of the psychosis phenotype has been associated with the same risk factors related to psychosis (e.g., cannabis, urbanicity, trauma) conferring aetiological validity on this construct and suggesting a possible continuity between clinical and subclinical psychosis phenotypes [20,21].

The aim of the psychometric high-risk paradigm is the early detection of individuals at high risk for schizophrenia-spectrum disorders using their score profile on measurement instruments. At present, it is considered to be a feasible and useful strategy which allows a series of advantages with respect to other assessment methods, as it is a noninvasive

* Corresponding author at: University of La Rioja, C/Luis de Ulloa, s/n, Edificio VIVES, C.P: 26002 Logroño, La Rioja, Spain. Tel.: +34 941 299 309; fax: +34 941 299 333.

E-mail address: eduardo.fonseca@unirioja.es (E. Fonseca-Pedrero).

method of rapid application and easier administration, scoring and interpretation [7,17]. Moreover, it allows the study of experiences that are similar to those found in patients with psychosis while avoiding the confounding effects frequently found in these individuals (e.g., medication or stigmatization) [16]. The literature in this field holds a wide variety of measuring instruments for the assessment of schizotypy [22]. Among the most widely used are the Chapman's Scales or the Wisconsin Schizotypy scales (WSS). Based largely upon Meehl's [23] theory of schizotypy, in the 70s and 80s, the Chapmans and their colleagues developed different self-report instruments to assess a broad range of experiential and behavioural features of schizotypy [24], as a latent personality organization that harbors the liability for schizophrenia [25,26]. Included in the Chapman's scales, we find the Perceptual Aberration Scale (PAS) [27], Magical Ideation Scale (MIS) [28], Revised Social Anhedonia Scale (RSAS) [29] and Revised Physical Anhedonia Scale (RPhA) [30]. The WSS have shown predictive validity on independent follow-up studies [7,31,32]; its relationship with at-risk mental states and psychological constructs [33,34], its ecological validity [35], its factorial equivalence across cultures [36], sex and age [37] as well as its adequate psychometric properties have also been reported [17,22,24].

Recently, Kwapil and collaborators have conducted a brief version of the WSS (WSS-B) [38,39]. The administration of the WSS takes more time (166 items), so that the construction of an abbreviated version of the four WSS without loss of metric quality can be of great interest from a clinical and research point of view. The selection of the final items that make up the WSS-B was carried out rigorously, and the psychometric properties have been analyzed from the framework of Classical Test Theory (CTT) and Item Response Theory (IRT). Differential item functioning (DIF) was also examined for sex and ethnicity [40]. After item purification of each of the four scales, it was composed of 15 items. Those items with high item difficulty, high discrimination, and low differential item functioning were retained. The psychometric properties of the WSS-B, and particularly of the MIS and PAS brief versions (MIS-B; PAS-B), have been studied previously. Also, using a two-parameter IRT model, it was shown that the four WSS scales effectively assess schizotypy at the high end of the latent trait [38,39].

The previous findings provide preliminary validity of the WSS-B scores. However, it would be interesting to conduct further studies that measure the quality of these scales on new samples of interest; for example, the analysis of the internal structure of the MIS-B or PAS-B at the item level. Moreover, the detection of these types of individuals at risk for psychosis, whether in clinical or educational settings, requires having adequate measurement instruments that allow us to make solid and well-founded decisions based on the data. Within this research context, the main goal of the present study was to provide new sources of validity

evidence of the MIS-B and PAS-B in two samples of non-clinical young adults. In this sense, we can examine the internal structure of the PAS and the MIS brief versions through exploratory and confirmatory factor analysis. We then study the reliability of the scores. We also examine the psychometric properties of the MIS-B and the PAS-B scores using modern measurement models such as IRT and DIF by sex. This allows us to understand the phenotypic expression of the positive dimension of schizotypy in non-clinical populations.

2. Method

2.1. Participants

Participants came from two independent incidental samples of the non-clinical general population. The first subsample was composed of 710 college students from different degree courses at the University of Oviedo (Education, Criminology, Psychology, Medicine, Speech Therapy, IT, Economics and Physiotherapy). The sample was made up of 172 men (24.1%) and 539 women (75.9%). The mean age of the participants was 19.8 years ($SD = 1.9$), with a range of 17–27. The mean years of education were 16.3 ($SD = 1.9$). Data from this sample have been used in a previous study [37]. The second subsample was composed of a total of 639 college students from different degree courses at the University of Oviedo (Education, Psychology, Speech Therapy, Economics and Physiotherapy) and the University of La Rioja (Education). This sample was made up of 117 men (18.3%) and 522 women (81.7%). The mean age of the participants was 21.4 years ($SD = 2.8$), with a range of 17–30. The mean years of education were 18.1 ($SD = 2.9$). With regard to marital status, 58.8% were single, 37.4% lived in common-law relationships, 2.7% were married, 0.3% were divorced, and 0.8% did not report their status. With regard to employment status, 85.6% were not working and 14.4% were working. Thirty-three percent of this sample reported having a first-degree relative with antecedents of some other psychological disorder. Comparison between subsamples showed statistically significant differences according to age ($t = -11.07$; $p < .001$), but not according to sex ($\chi^2 = 6.68$, $p = .10$).

2.2. Instruments

Magical Ideation Scale-Brief (MIS-B) [28]. It is a self-report scale used for the assessment of superstitious and magical beliefs and thoughts as well as for the capacity of mind reading or thought broadcasting. It is composed of 15 items in a dichotomous True/False format. In the present work, we used the version adapted and validated for the Spanish context [41,42]. This adaptation was made in line with the international guidelines for the translation and adaptation of tests [43,44].

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات