



ORIGINAL ARTICLE

Psychometric properties of the Conners-3 and Conners Early Childhood Indexes in a Spanish school population



Paula Morales-Hidalgo^a, Carmen Hernández-Martínez^a, Magally Vera^{a,b},
Núria Voltas^a, Josefa Canals^{a,*}

^a *Research Center for Behavioral Assessment (CRAMC), Nutrition and Mental Health Research Group (NUTRISAM), Universitat Rovira i Virgili, Spain*

^b *Faculty of Humanities and Education, Universidad de los Andes, Venezuela*

Received 21 April 2016; accepted 20 July 2016

Available online 25 October 2016

KEYWORDS

Conners;
ADHD;
School population;
Psychometric
properties;
Descriptive survey
study

Abstract *Background/Objective:* To examine the psychometric properties of the Conners 3 ADHD Index (Conners 3 AI) and the Conners Early Children Global Index (Conners ECGI) parents' form (PF) and teachers' form (TF) in Spanish schoolers. *Method:* Two-phase cross-sectional study. In the first phase, information was gathered from teachers ($n = 1,796$) and parents ($n = 882$) of 4-5 and 10-11 year-old children. In the second phase ($n = 196$), children at risk of ADHD and controls were individually assessed. *Results:* The results confirmed the two-factor structure of the Conners 3 ADHD Index, which contains hyperactive-impulsive and inattentive symptoms, and the two-factor structure of the Conners ECGI PF, consisting of emotional lability and restless-impulsive symptoms. In contrast with the original version, the Conners ECGI TF presented an additional inattentive factor. Moderate-to-high rates of evidence of convergent validity with Child Behavior Checklist and Kiddie-Schedule for Affective Disorders & Schizophrenia, and evidence of external validity (academic achievement) were found. Scores were significantly higher in boys than in girls, for both indexes. Raw scores corresponding to clinical T -scores were higher than the original version. *Conclusions:* The Conners indexes may be considered reliable and valid instruments for detecting ADHD symptoms in Spanish populations.

© 2016 Asociación Española de Psicología Conductual. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

* Corresponding author: Department of Psychology, Rovira i Virgili University, Ctra. Valls s/n, 43007 Tarragona, Spain.
E-mail address: josefa.canals@urv.cat (J. Canals).

PALABRAS CLAVE

Conners;
ADHD;
población escolar;
propiedades
psicométricas;
estudio descriptivo
por encuesta

Propiedades psicométricas de los Índices de Conners-3 y Conners Early Childhood en población escolar española

Resumen *Antecedentes/Objetivo:* Analizar las propiedades psicométricas del *Conners 3 ADHD Index* (Conners 3 AI) y del *Conners Early Childhood Global Index* (Conners ECGI), en sus formas para padres (PF) y maestros (TF), en escolares españoles. *Método:* Estudio transversal en doble fase. En la primera fase, se recogió información de maestros ($n=1.796$) y padres ($n=882$) de niños de 4-5 y 10-11 años. En la segunda fase ($n=196$), se evaluaron individualmente niños a riesgo de TDAH y controles. *Resultados:* Se confirmó la estructura bifactorial del Conners 3 AI, que agrupa síntomas de hiperactividad-impulsividad e inatención, y del Conners ECGI PF, que agrupa síntomas labilidad emocional e inquietud-impulsividad. A diferencia de la versión original, el Conners ECGI TF presentó un factor adicional de inatención. La evidencia de validez convergente con el *Child Behavior Checklist* y la *Kiddie-Schedule for Affective Disorders & Schizophrenia*, y de validez con criterios externos (rendimiento académico) fueron entre moderadas y altas. Se encontraron puntuaciones significativamente más altas en los niños que en las niñas para ambos índices. Las puntuaciones directas correspondientes a puntuaciones *T* clínicas fueron más elevadas que en la versión original. *Conclusiones:* Los Índices de Conners pueden considerarse instrumentos válidos y fiables para detectar sintomatología de TDAH en población española.

© 2016 Asociación Española de Psicología Conductual. Publicado por Elsevier España, S.L.U. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Attention deficit hyperactivity disorder (ADHD) is the most commonly diagnosed neurodevelopment disorder in children and adolescents. Recent international and national meta-analyses have estimated ADHD prevalence to be around 7% in children and adolescents from non-clinical populations (Català-López et al., 2012; Thomas, Sanders, Doust, Beller, & Glasziou, 2015). Among preschoolers, a prevalence of between 2% and 5% has been described (Canals, Morales-Hidalgo, Jané, & Domènech, 2016; Ezpeleta, de la Osa, & Domènech, 2014; Gudmundsson et al., 2013; Wichstrøm et al., 2013).

The use of validated screening tools in primary health care and school is commonly recommended to improve the identification of psychopathology in the general child population. In ADHD detection, clinical guidelines encourage professionals to collect behaviour information on the child in multiple environments, especially in the family and at school (American Academy of Child and Adolescent Psychiatry, AACAP, 2007; American Academy of Pediatrics, AAP, 2011; Grupo de Trabajo de la Guía de Práctica Clínica, GPC, 2010; National Institute for Health and Clinical Excellence, NICE, 2016). This is necessary because parents and teachers can often show different views about the child's behaviour due to the environment in which the child is evaluated. Specifically, hyperactive-impulsive symptoms appear to be more consistently reported by both informants than inattentive symptoms (Narad et al., 2015).

For this purpose, behaviour rating scales based on Diagnostic Statistical Manual, DSM (American Psychiatric Association, APA, 2013) or CIE-10 (World Health Organization, WHO, 1992) criteria are recommended and commonly used by neuro-paediatricians and clinical

and school psychologists when academic or behaviour problems and symptoms of inattention, hyperactivity, or impulsivity are referred in children. These questionnaires tend to be brief and categorical, such as the SNAP-IV (Swanson et al., 2001) or the ADHD Rating scale IV (DuPaul et al., 1998).

The Conner's rating scales (Conners, 1989, 1997, 2009) provide a dimensional assessment of the child behaviour, such as inattention, hyperactivity/impulsivity, learning problems, executive functioning, aggression and peer relations. The several forms of the questionnaire are widely used in many countries as screening and follow-up tools. In Spain, validations of these scales have been performed by several authors with good results (Amador, Idiazabal, Aznar, & Peró, 2003; Amador, Idiazabal, Sangorrín, Espadaler, & Forns, 2002; Farre-Riba & Narbona, 1997). The new versions of the Conners Early Childhood Global Index (Conners ECGI; Conners, 2009) and the Conners 3 ADHD Index (Conners 3 AI; Conners, 2008) are reliable instruments for detecting ADHD problems in children aged 2 to 6 and 6 to 18 years old, respectively. Both questionnaires load the 10 highest items from the original and revised Conners Parent and Teacher Rating Scales (Conners, 1989, 1997). The Spanish validations of the Conners 3 AI and the Conners ECGI have been conducted in a Hispanic American population (Conners, 2008, 2009), but we do not have data on the psychometric properties in a Spanish population. In this context, Arias Martínez, Arias González, & Gómez Sánchez, 2013 conducted a calibration of Conners 3 AI with Rasch' model on a sample of 5 to 6 year old children. Although this was lower than the recommended age, the results indicated good psychometric properties and a floor effect in children with low levels of hyperactivity.

Download English Version:

<https://daneshyari.com/en/article/7240437>

Download Persian Version:

<https://daneshyari.com/article/7240437>

[Daneshyari.com](https://daneshyari.com)