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Construction and validation of an ADHD screening tool for preschool children: A study with Spanish population

Construcción y validación de una escala de cribado de TDAH para niños preescolares: Un estudio con población española

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Introduction Method Results Discussion References

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Abstract

Most cases of ADHD occur in children under five, and this situation calls for screening tools with high sensitivity and specificity for early age. This study presents the ADHD-3P, a new screening tool developed with Spanish population for preschool children. From an initial pool of 151 items, face validity analyses, followed by item analyses and analysis of the scale, were carried out. A 27-item scale $(\alpha = .95)$ composed of three factors: hyperactivity $(\alpha = .92)$, inattention ($\alpha = .92$), and other symptoms ($\alpha = .81$) resulted from the analyses. Discriminant power was high (89.7% for ADHD, and 88.3% for non-ADHD). Diagnostic performance was evaluated through Receiver-Operating Characteristic curves, and excellent sensitivity (92.86%) and specificity (89.86%) were obtained. In sum, the ADHD-3P is a promising tool to be used by parents, teachers, and pediatricians.

Keywords: attention-deficit/hyperactivity disorder, screening, preschoolers, psychometrics, measure development

Resumen

La mayoría de los casos de TDAH suceden en niños menores de cinco años, y esta situación requiere de herramientas de cribado con elevada sensibilidad y especificidad para edades tempranas. Se presenta la ADHD-3P, una nueva herramienta de cribado desarrollada con población española para niños de preescolar. A partir de 151 ítems, se realizaron análisis de la validez aparente, análisis de los ítems y de la escala. Estos resultaron en una escala de 27 ítems ($\alpha = .95$) compuesta por tres factores: hiperactividad ($\alpha = .92$), inatención ($\alpha = .92$) y otros síntomas ($\alpha = .81$). El poder discriminativo de la escala fue elevado (89.7% para niños con TDAH y 88.3% para niños sin TDAH). La capacidad diagnóstica fue evaluada mediante curvas ROC y mostró una excelente sensibilidad (92.86%) y especificidad (89.86%). En suma, la ADHD-3P es una herramienta prometedora para ser utilizada por padres, profesores y pediatras.

Palabras clave: TDAH, cribado, preescolar, propiedades psicométricas, desarrollo de escala

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Introduction

Attention Deficit Hyperactivity Disorder (ADHD; American Psychiatric Association, 2013), or Attention and Activity Disorder (World Health Organization, 2010) is one of the most prevalent neurodevelopmental disorders in the child population. Both the DSM (Diagnostic and Statistical Manual of Mental Disorders; American Psychiatric Association, 2013) and the ICD (International Classification of Diseases; World Health Organization, 2010, 2018) manuals designate attention deficit, hyperactivity and impulsivity as core symptoms. An overall prevalence of between 8% and 12% is estimated (American Psychiatric Association, 2013; World Health Organization, 2010, 2018) and there is a general consensus regarding the underestimation of the ADHD (Rowland et al., 2001). Regarding clinical presentations, there is some agreement that inattentiveness is more common, and that for every girl diagnosed with ADHD there are three boys (Willkut, 2012).

The impact of ADHD on children and their families is widely known, hence the importance of early detection (Hurtig, Taanila, Moilanen, Nordström, & Ebeling, 2012; Kooij et al., 2010; Sikirica et al., 2015; Wehmeier, Schacht, & Barkley, 2010). But detection is not easy for several reasons: (1) the diversity of clinical presentations (Costa-Dias et al., 2013; Potter, Dunbar, Mazzulla, Hosford, & Newhouse, 2014); (2) the onset of the disorder coincides with some age-related behaviors (Reyes-Sandoval & Acuña, 2012; Vaquerizo-Madrid, 2005); (3) the symptoms overlap with other disorders, such as Oppositional Defiant Disorder or Disruptive Mood Dysregulation Disorder (Mulraney et al., 2016) and (4) some of the behavioral disorders overlap with other emotional disorders, such as anxiety-related disorders (Overgaard, Aase, Torgersen, & Zeiner, 2016). In

sum, ADHD, rather than being a homogeneous entity, is a group of conditions with potentially different etiological and risk factors and with different outcomes (Costa-Dias et al., 2013; Spencer, Biederman, & Mick, 2007).

This situation calls for screening tools with high sensitivity and specificity for early age, as most cases of ADHD occur in children under five (Vaquerizo-Madrid, 2005). Existing scales, such as the ADHD Symptom Checklist-4 (ADHD-SC4), have shown moderate sensitivity (Sprafkin, Gadow, & Nolan, 2001). The Attention Problem Scale of the Child Behavior Checklist (CBCL-APS) has shown moderate diagnostic performance (Lampert, Polanczyk, Tramontina, Mardini, & Rohde, 2004), as has the Pediatric Attention Disorders Diagnostic Screener (PADDS; Newman & Reddy, 2017) and the Persian version of the Conners' Adult Attention-Deficit/Hyperactivity Disorder (ADHD) Screening Scale (Davari-Ashtiani, Jazayeri, Arabgol, Razjouyan, & Khademi, 2014). Moderate levels of discriminant power have been obtained with the Face Stimulus Assessment (FSA; Betts, 2003; Kim, Kim, & Seo, 2014) and other novel tools such as the AAPS (Brownlie, Lazare, & Beitchman, 2012). Additionally, moderate agreement levels have been found between diagnoses obtained with different screening tools (Posserud et al., 2014).

While several scales for assessing ADHD in preschool populations through proxies or key informants are currently available, there are few studies that prove the diagnostic capability of the screening tools in early childhood. Also, existing studies show a relatively low diagnostic capability (Holmberg, Sundelin, & Hjern, 2013; Lampert et al., 2004), which results in false positives (Sayal, Letch, & El Abd, 2008).

Additional limitations are related to poor agreement in the assessment of symptoms (Levin-Decanini, Connolly, Simpson, Suarez, &

Jacob, 2013; Re & Cornoldi, 2009) and a lack of consensus between parents' and teachers' assessments (Deb, Dhaliwal, & Roy, 2008; Efstratopoulou, Simons, & Janssen, 2013; Power, Costigan, Leff, Eiraldi, & Landau, 2001; Raiker et al., 2017; Re & Cornoldi, 2009; Wolraich et al., 2004). The choice of screening strategy significantly affects how teachers report on ADHD symptoms at school. The halo effect of externalizing behaviors impacts on the correct identification of true cases of ADHD in the school setting (Kieling et al., 2014).

Another limitation of existing studies relates to the need to take cultural factors into account, as these even affect the perception of the severity of ADHD symptoms (CEAL-TDAH, 2009; Hillemeier, Foster, Heinrichs, & Heier, 2007; Norvilitis, Ingersoll, Zhang, & Jia, 2008). Hence the importance of instruments adapted to culture (Cornelio-Nieto, Borbolla-Sala, & García-Valdovinos, 2010). In sum, policies, research, and applied decisions depend on measurement instruments and the quality of decisions depends on the quality of the instruments (Danner et al., 2016; Ziegler, 2014).

Thus, in order to help overcome current shortcomings, this study developed the ADHD-3P scale. The name refers to the three informants who best know the child: Parents, Professors (teachers) and Pediatricians. This paper presents the process used to investigate the psychometric properties of the scale. First, we examined the adequacy of content; second, we examined the face validity of the scale. Next, we assessed its reliability and validity, which is understood as the degree to which all the accumulated evidence supports the intended interpretation of test scores for the intended purposes (AERA, APA, & NCME, 1999, as cited in Goodwin & Leech, 2003). It includes evidence from experts and judges' reviews on the test content, evidence on internal structure by means of exploratory factor analysis and evidence on relations to other variables, specifically construct validity, and convergent and discriminant validity (Goodwin & Leech, 2003). Lastly, we examined the sensitivity and specificity of the scale for early identification of the first clinical manifestations compatible with ADHD and the cutoffs that distinguish between the clinical and nonclinical populations.

Method

Participants

This study required the participation of four different groups for the next steps (see Table 1). The first step required expert raters for face validity. A total of 16 experts, consisting of parents, professors, and pediatricians were consulted. The second step included a large sample of parents (N = 644) of children with (n = 281) and without ADHD (n = 363), to perform item analyses as well as Cronbach's alpha reliability tests and exploratory factor analysis. The third step utilized a sample of 79 informants who filled out the measure twice, for test-retest analyses. The fourth step utilized a sample of 54 parents of children with (n = 35) and without ADHD (n = 19) to determine the diagnostic accuracy of the developed measure. In all cases, confidentiality and voluntariness were guaranteed and the provisions of the participating agencies ethics' committees have been followed.

Measures

In addition to the ADHD-3P scale, whose development and characteristics are detailed in this research, the SNAP-IV Teacher and Parent Rating Scale (18 items; Swanson et al., 2001) was

used for the analysis of convergent validity and comparison of the diagnostic performance of both scales. This test is a hetero-report, completed by parents and teachers of children between 3 and 17 years to assess the presence and severity of behaviors consistent with ADHD. The 18 items (nine questions in the *attention* subscale and nine for *hyperactivity / impulsivity*) are scored on a Likert scale from 0 (*none*) to 3 (*very much*) points. Several studies support the sensitivity and specificity of the SNAP-IV (Alda & Serrano-Troncoso, 2013; Berrocal et al., 2011; Bussing et al., 2008) and so, the demonstrated quality of that measure served as the basis for its use in this study.

Procedure

The instrument was developed using the procedure summarized in Table 1. The preliminary step consisted in the development of an initial set of 151 items commonly used for assessing ADHD in children. The authors of the current

study were responsible for their initial selection from existing measures in different languages. Clinical criteria and clinical experience with the targeted population were also the basis for the development of some of the items. The number of initial items was considered reasonable given the expected dimensions and the final configuration of the screening tool (Netemeyer, Bearden, & Sharma, 2003).

Results

The ratings obtained by the 16 judges (n = 8 teachers, n = 5 parents, and n = 3 pediatricians) led to the retention of 45 (29.8%) of the original 151 items, which were found relevant, intense and clear enough for preschool children. Relevance and intensity were defined as an average score higher than 2.5 in a 1 to 4 scale. The clarity of the items was tested with the most common reliability coefficients for multiple coders assessing nominal data: the average pairwise percent agreement, Fleiss' kappa, average pairwise Co-

Table 1

Summary of the procedure (steps and tasks) followed in the development and validation of the ADHD-3P scale.

Steps and Tasks

Step 1: (Face validity) Consultation of 16 expert judges and ratings on:

- 1. Category
- 2. Intensity
- 3. Relevance

Step 2: Construction and application of a (45-item) preliminary version of the scale

1. Item Analyses (discriminative power, internal consistency)

Step 3: Application and analysis of the scale (27-item)

- 1. Factor analysis
- 2. Internal consistency
- 3. Agreement between raters
- 4. Stability (test-retest)
- 5. Construct validity
- 6. Convergent validity: correlations with the SNAP IV
- 7. Discriminant validity
- 8. Diagnostic capability (obtaining ROC curves) and testing with ADHD preschool children

hen's kappa, and the Krippendorff's alpha (Freelon, 2010). Next, the items analyses required to calculate the discriminative power of the items by means of t-test for independent groups (i.e. with or without ADHD). All items reached a confidence level of 1 per 1000 (p < .001). Then, we calculated the internal consistency coefficients of the items: Items with low corrected homogeneity (defined as values below .20) were excluded from further analysis resulting in 27 items.

Step 3, analysis of the scale (see Table 1), involved eight tasks. First, exploratory factor analysis was performed with the remaining 27 items. Principal component analysis with oblimin

rotation was performed, as a correlation between the extracted factors was expected, provided that the samples were big enough (KMO-test greater than .5; Field, 2000; Tabachnick & Fidell, 2007). Analyses led to the identification of three factors (loadings between .35 and .92). Thus, the final scale comprised of 27 items grouped into three factors. Table 2 shows the eigenvalues and percentages of explained variance. Analysis of subscales internal consistency was then performed and the findings indicated high reliability for hyperactivity ($\alpha = .92$), inattention ($\alpha = .92$) and other symptoms -impulsivity, irritability- ($\alpha = .81$), as well as for the scale total scores ($\alpha = .95$).

Table 2 Eigenvalues and explained variance (three-factor solution with varimax rotation).

Component	Total	% variance	e % accumulated	
1 Hyperactivity (n = 12)	10.38	38.43	38.43	
2 Inattention $(n = 9)$	3.74	13.85	52.28	
3 Other symptoms $(n = 6)$	1.71	6.32	58.60	

Note. Method of extraction: principal components analysis. Oblimin rotation.

Task 3 (see Table 1) was to assess the agreement between raters. The analyses resulted in significant medium-high correlations between the ratings of both parents of the children with ADHD (r=.52 for inattention, r=.80 for hyperactivity, and r=.80 for other symptoms). The fourth task, determining the stability of the assessments, was calculated using the test-retest correlation between ratings of the informants. Values were higher than .98 for the different dimensions, which guarantees high stability.

The fifth task (Table 1), construct validity of the scale, required calculating correlations between the dimensions of the scale and age at diagnosis. As expected, the correlation between *hyperactivity* and age at diagnosis was significant and negative (r = -.20; N = 277; p = .001). The association was also significant with *inattention* (r = -.20; N = .001)

= -.15; N = 277; p = .012), and with *other symptoms* (r = -.21; N = 277; p < .001).

The sixth task required determining the convergent validity of the ADHD-3P with the SNAP IV scale through the correlations between scores on the factors and total scale. Correlations were high for *hyperactivity* (r = .80; p < .01), *inattention* (r = .83; p < .01) and the total scale (r = .83; p < .01). The size of the correlations further suggests that while similar content is being assessed, they are not identical, thus the scale under construction adds relevant and new content.

The seventh task (Table 1) was the analysis of the discriminant validity, taking the dimensions of the scale as potentially predictive variables and group membership (i.e. with or without ADHD) as a predicted variable. This led to the obtainment of a discriminant function with an eigenvalue = 1.561 and canonical correlation = .78,

which accounts for 100% of the variance (Wilks' = .39; p = .0001). Intragroup correlations of each variable with the canonical function were: .95 (inattention), .77 (hyperactivity) and .64 (other symptoms). In total, the function correctly classified for 88.5% of cases and showed high ability to classify participants with ADHD (i.e. sensitivity; 89.7% of cases correctly classified, CI: 85.52% to 92.98%), and those without ADHD (i.e. specificity; 88.3% of cases classified correctly, 95% CI = 84.56% to 91.46%).

The eighth task was the comparison of the diagnostic performance of the ADHD-3P against the SNAP-IV, using a sample of 54 cases of which 35 were clinical (i.e. with ADHD) and 19 were non-clinical (i.e. without ADHD). The ADHD-3P values of the areas under the curve (AUC) revealed the existence of great scale capacity to discriminate between clinical and non-clinical in *hyperactivity* and *inattention* (Table 3). Confidence intervals were equally satisfactory for the dimensions of *hyperactivity* and *inattention*, and slightly lower for *other symptoms*. The data were higher than those obtained with the SNAP which only include the two main dimensions of the disorder.

After obtaining the cutoff scores for each of the dimensions that maximize the sensitivity and specificity, we proceeded to test the diagnostic performance of the scale with preschool children (n = 69 nonclinical, and n = 28 clinical cases), through Receiver-Operating Characteristic (ROC) curves. Regarding hyperactivity, a cutoff score of 15.10 correctly identified the 26 clinical cases and 53 nonclinical cases. On the other hand, 16 false positives and 2 false negatives were identified. The sensitivity was 92.86% and the specificity was 76.81%. As for inattention, a cutoff score of 13 correctly identified 24 clinical cases and 65 nonclinical cases. It also identified 4 false positives and 4 false negatives. The sensitivity was 85.71% and the specificity was 94.20%. Regarding the other symptoms scale, a cutoff score of 7.50 correctly identified 27 clinical cases and 60 nonclinical cases. It also identified 9 false positives and 1 false negative. The sensitivity was 96.43% and specificity was 86.96%. Finally, considering the ADHD-3P scale overall, a cutoff score of 37.50 correctly identified 26 clinical and 62 nonclinical cases. It also identified 7 false positives and 2 false negatives. The sensitivity was 92.86% (95% CI = 76.50% to 99.12%) and speci-

Table 3Area Under the Curve (AUC) of the variables Hyperactivity, Inattention and Other symptoms.

				95% asymptotic Confidence limits			
Variables	AUC	SE	p	Lower Limit	Upper Limit		
ADHD-3P							
Hyperactivity	.98	.01	< .001	.96	1.01		
Inattention	.98	.02	< .001	.95	1.02		
Other symptoms	.86	.06	< .001	.75	0.97		
Total	.97	.03	< .001	.93	1.02		
SNAP							
Hyperactivity	.97	.02	< .001	.93	1.01		
Inattention	.97	.03	< .001	.92	1.03		
Total	.99	.01	< .001	.97	1.01		

ficity was 89.86% (95% CI = 80.21% to 95.82%). The positive likelihood ratio was 9.15 (95% CI = 4.50 to 18.61) and negative likelihood ratio was .08 (95% CI = .02 to .31). All results were fully satisfactory.

Discussion

In this research, we have presented the process utilized to build and validate a brief scale for screening children in early childhood with possible ADHD. The developed scale (see Appendix 1 and 2 for English and Spanish versions, respectively) has shown very high sensitivity for the ADHD diagnosis in Spanish preschool children. This sensitivity is particularly high for the diagnosis of hyperactive symptoms as well as other symptoms. It also provides better results than similar studies with other screening tools (Abdekhodaie, Tabatabaei, & Gholizadeh, 2012; Alda & Serrano-Troncoso, 2013; Holmberg et al., 2013). Consequently, this measure contributes to the improvement of the early detection of possible clinical cases of ADHD at early ages, which is always challenging from a clinical point of view. An additional noteworthy fact is that the measure was developed by asking three different groups of informants: parents, teachers, and pediatricians. Each group contributed their visions of the disorder under consideration and their different experiences with it as well as the context (clinical, educational, family) when they need to face it for different purposes (diagnosis, treatment, support, etc.). These differences in purposes and roles offered a broader and more comprehensive view of the disorder and increased the content validity of the developed measure at the same time.

The high reliability obtained, understood as internal consistency, measurement stability and concordance between evaluators, supports great-

er measure accuracy than shown in other studies (Erhart, Döpfner, & Ravens-Sieberer, 2008; Kim et al., 2014). The analysis of content validity (by way of judges), construct validity (through factor analysis), convergent validity (with SNAP) and discrimination (using discriminant analysis and ROC curves) supports confidence in the adequacy of the scale for assessing relevant symptoms in Spanish children with ADHD, and improves on the results of other similar studies with other measures (Bussing et al., 2008; Sprafkin et al., 2001). The diagnostic performance of the ADHD-3P was also higher than that obtained with the SNAP, which only includes the two main dimensions of the disorder. The domain other symptoms includes items on impulsivity, which is acquiring increasing relevance in current factorial models on ADHD (Dumenci, McConaughy, & Achenbach, 2004).

However, this study is only a first step in the development and consolidation of screening tools for ADHD, and caution against using the ADHD-3P as the only tool for diagnostic purposes is advised. Currently, the predictive ability of the instrument is unknown. This will require the incorporation of children at risk without a diagnosis and subsequent evaluation of sensitivity and specificity. The continued use and dissemination of the ADHD-3P in Spanish and English speaking countries will allow us to answer this and other questions. The inclusion of the questionnaire in the appendix aims to serve as an incentive for use and dissemination in subsequent research efforts.

Yet, despite what we believe is a clear contribution in the field in question, we would like to put an emphasis on the importance of going beyond assessments and not focusing solely on the child. Effective interventions (Mikami et al., 2013) should include not only supports for the child but also for their parents and teachers. Hence the importance of targeting the "three Ps":

parents, professors, and pediatricians involved in the process of assessment and intervention.

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Appendix 1.

ADHD-3P Scale for the screening of ADHD in early years of life (English version) (Rodríguez-Becerra, Fernández-Mateos, & Jenaro, 2019)

Instructions

Below there are a series of behaviors that your child may or may not manifest to different degrees. Please, respond to each question by indicating the degree to which your child manifests the following behaviors using the following criteria or levels of intensity:

NOTHING if is not manifest = 0

LITTLE BIT if is not a relevant feature = 1

QUITE if it is a frequent behavior = 2

MUCH if is a typical feature for your child = 3

Please try to answer all questions. Thank you very much for your cooperation.

#	He or she:	N	L	Q	M	F
01.	Runs and jumps in inappropriate situations	0	1	2	3	H
02.	Is active	0	1	2	3	Н
03.	Is impulsive and irritable (explosive episodes)	0	1	2	3	O
04.	Is restless, moving all the time	0	1	2	3	Н
05.	It is prone to tantrums	0	1	2	3	O
06.	Talks excessively	0	1	2	3	Н
07.	Fidgets with hands or feet or squirms in seat	0	1	2	3	Н
08.	Is nervous	0	1	2	3	Н
09.	Does not complete activities that he/she begins	0	1	2	3	I
10.	Does not grasp the meaning of "no"	0	1	2	3	O
11.	Is not invited to birthday parties or similar	0	1	2	3	O
12.	Does not seem to listen when spoken to	0	1	2	3	I
13.	Does not plan or develop a strategy for playing	0	1	2	3	I
14.	Does not pay attention to detail: is negligent	0	1	2	3	I
15.	Does not pay attention for long periods of time (10 minutes) or cannot concentrate	0	1	2	3	I
16.	Does not remember what he/she has done previously	0	1	2	3	I
17.	Is constantly running around	0	1	2	3	Н
18.	Does not finish assignments	0	1	2	3	I
19.	Does not easily tolerate frustration	0	1	2	3	O
20.	Does not tolerate being still	0	1	2	3	Н
21.	Has a difficult temperament	0	1	2	3	O
22.	Has difficulties playing quiet games	0	1	2	3	Н
23.	Has difficulties organizing tasks	0	1	2	3	I
24.	Struggles to follow instructions and fails to finish tasks	0	1	2	3	I
25.	Shows difficulties waiting for his/her turn	0	1	2	3	Н
26.	Has trouble with sitting down when required	0	1	2	3	Н
27.	Touches everything although it is prohibited	0	1	2	3	Н

Nota. F = Factor; H = Hyperactivity; I = Inattention; O = Other symptoms.

Appendix 2.

ADHD-3P Escala para el cribado de TDAH en los primeros años de vida (versión en castellano) (Rodríguez-Becerra, Fernández-Mateos, & Jenaro, 2019)

Instrucciones

A continuación se describen una serie de comportamientos que el niño/a puede o no manifestar en diferentes grados. Responda por favor a cada pregunta marcando con una cruz el grado en que el niño/a manifiesta las conductas indicadas a continuación, respondiendo a los siguientes criterios o niveles de intensidad:

NADA o no lo manifiesta = 0

POCO o no es una característica relevante = 1

BASTANTE o es una conducta frecuente = 2

MUCHO o es una característica típica de su hijo/a = 3

Por favor, trate de responder a todas las preguntas. Muchas gracias por su colaboración.

N. °	El niño o niña:	N	P	В	M	F
01	Corre y salta en exceso en situaciones inapropiadas	0	1	2	3	Н
02	Es excesivamente activo/a	0	1	2	3	Н
03	Es impulsivo/a e irritable (episodios explosivos)	0	1	2	3	O
04	Es inquieto/a, no para de moverse	0	1	2	3	Н
05	Es propenso/a a las rabietas	0	1	2	3	O
06	Habla excesivamente	0	1	2	3	Н
07	Mueve en exceso las manos o los pies o se retuerce en su asiento	0	1	2	3	Н
08	Es nervioso/a	0	1	2	3	Н
09	No acaba las actividades que empieza	0	1	2	3	I
10	No entiende el significado de "NO"	0	1	2	3	O
11	No le invitan a las fiestas de cumpleaños o similar	0	1	2	3	O
12	No parece escuchar cuando se le habla	0	1	2	3	I
13	No planifica o elabora una estrategia para jugar	0	1	2	3	I
14	No presta atención a los detalles: es descuidado/a	0	1	2	3	I
15	No presta atención durante mucho rato (10 minutos) o no puede concentrarse	0	1	2	3	I
16	No recuerda lo que acaba de hacer	0	1	2	3	I
17	Se mueve constantemente	0	1	2	3	Н
18	No termina lo que se le pide	0	1	2	3	I
19	No tolera fácilmente la frustración	0	1	2	3	O
20	No tolera la quietud	0	1	2	3	Н
21	Muestra un temperamento dificil	0	1	2	3	O
22	Tiene dificultad para jugar a juegos tranquilos	0	1	2	3	Н
23	Tiene dificultad para organizar las tareas	0	1	2	3	I
24	Tiene dificultad para seguir instrucciones y no logra terminar las tareas	0	1	2	3	I
25	Tiene dificultades para esperar su turno	0	1	2	3	Н
26	Tiene problemas para sentarse cuando la situación lo requiere	0	1	2	3	Н
27	Toca todo lo que ve aunque esté prohibido	0	1	2	3	H

 $\textbf{Nota.} \ F = Factor; \ H = Hiperactividad; \ I = Inatención; \ O = Otros \ síntomas.$