주의력결핍/과잉운동장애(ADHD) 아동의 진단도구로서 부모용 행동 평가지의 타당도 연구

– 한국아동인성검사와 아동·청소년 행동평가척도를 중심으로 –

A VALIDITY STUDY OF PARENT BEHAVIORAL RATING SCALES AS DIAGNOSTIC TOOLS OF ATTENTION DEFICIT/ HYPERACTIVITY DISORDER

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요 약   -   (Attention Deficit/Hyperactivity Disorder, ADHD)   (Korean Personality Inventory for Children, K- PIC)   ·   (Korean Child Behavior Checklist K- CBCL)

     .

     ADHD   -   (ADHD- I)   11   - (ADHD- H)   23 , ,   (N)   16 ,   15   65   .

,   .

K- PIC   K- CBCL   (omnibus) F-   , K- PIC   (HPR) K- CBCL   (Attention Problems,   AP)   .   , ADHD- I   ADHD- H   ,   .05   .

K- PIC   (HPR)   K- CBCL   (Attention Problems)   ,   .   HPR   ADHD- H type , K- CBCL   AP   ADHD- I type   , HPR   AP   .   cut- off score   T   65   ADHD

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, (true positive rate sensitivity) (true negative rate speci-
ficity) .

중심 단어 / . . . .

, , .

서 론

- (Attention Deficit/
Hyperactivity Disorder, ADHD) .
2% 9% [1), (Personality Inv-
. entory for Children, PIC) [9)
8.7%[2), 7.6% (Child Behavior Checklist, CBCL) [10) .
[3). ADHD (Korean Per-
sonality Inventory for Children, KPI- C)
" "(Hyperkinetic syndrome)," . (Korean Child Behavior
"(Hyperkinetic reaction of child- Checklist, K- CBCL)
hood) , 70 . KPI- C K- CBCL
,
- ADHD
, - KPI- C HPR( ) K- CBCL AP(
, - [4) .)
ADHD - HPR 95%
. , , , [11) .
,
[5). [12) .
. ADHD
[6). , -
, , ,
. KPI- C K-
, CBCL ADHD
[7). DSM- IV[4) , ADHD
ADHD , - , -
. . KPI- C K- CBCL
ADHD
, -
- . KPI- C
[8). K- CBCL (,
ADHD ADHD ,
. ADHD ADHD- I ADHD- H

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Table 1. Demographic characteristics of subjects				
Group	N	Age	Sex (Male/Female)
ADHD-I type	11	8.18(1.60)	8 / 3
ADHD-H type	23	8.22(1.65)	22 / 1
Neurosis	16	8.94(1.61)	10 / 6
Normal	15	7.27(.07)	8 / 7

.   ,

ADHD

ADHD

.

방   법

1. 연구대상 및 절차

1998   3

ADHD   34   ADHD
(,   )   16   ,
15   .
80
.   65
48   (74%)   ,   17
(26%)   .
6   12
,   8   (Table 1).

ADHD   DSM- IV
-                        11
-                        23
.   ADHD
16
.
15   ,
.

2. 연구도구

1) 한국아동인성검사(KPI-C)

(?),   -

(T- R),   (L),   (F)   4
(ERS),   11
,
255   .
(VDL),   (PDL),
(ANX),   (D),
(SOM),   (DLQ),
(HPR),
(PSY),   (AUT)   (FAM),
(SOC)   .

,

T-   65
[11]
ADHD   HPR
95%   .
(HPR)   ADHD
,
,
.

2) 아동·청소년 행동평가 척도(K-CBCL)

.

,
119
, 13   (,   ,   /   ,
,   ,   ,   ,   ,
,   ,   , (sex)   ,
)   .

,

3. 자료분석

HPR
,
.

ADHD
,   .

결 과

1. 각 집단별 HPR 척도와 AP(주의 집중 문제)척도 사이의 상관관계

HPR AP ADHD

. Table 2 , ADHD-

I

.

2. 각 척도별 변량분석 결과

(MA-
NOVA) , Pillais's Trace, Willks' Lamda,
Hotelling's Trace, Roy's Largest Root

(p<.001) . HPR

. , HPR

Table 3

(ADHD- I, ADHD-
H, Neurosis)

. , HPR AP

,

.

3. 판별분석

HPR

(p<.001),

.90 , Wilks' Lamda .50
(canonical correlation coefficient) .69 .

, 54.4%
(Table 4).

ADHD ADHD
(true positive rate sensitivity)
ADHD- I type 81.8% ADHD- H
type 82.6%

Table 2. Correlations between HPR scores and atte-
ntion problems scores

Group	r
ADHD-I type	.51
ADHD-H type	.54*
Neurosis	.60*
Normal	.75*

Correlational coefficients are statistically significant
(* : p< 0.05)

Table 3. Comparison of HPR and attention problems
scores

	Group[a]	N	Mean(SD)	F
HPR	1	11	62.18(11.41)	
	2	23	67.04(9.70)	16.89* 1,2,3> 4
	3	16	60.44(12.49)	
	4	15	41.80(10.66)	
AP	1	11	67.93(9.67)	
	2	15	63.60(8.02)	9.83* 1,2,3> 4
	3	16	63.63(9.97)	
	4	15	51.80(3.28)	

a : Group numbers represerts each group as follows :
  1 ; ADHD-I type   2 ; ADHD-H type
  3 ; Neuvosis   4 ; Normal
Values are significant based on analysis of variance
(* : p< 0.05)

Table 4. Results of discriminant analysis

Actual group	No of cases	Predicted group membership			
		ADHD-I type	ADHD-H type	Neurois	Normal
ADHD-I type	11	6 54.5%	3 27.3%	1 9.1%	1 9.1%
ADHD-H type	23	5 21.7%	14 60.9%	3 8.7%	3 8.7%
Neurosis	16	5 31.3%	5 31.3%	3 18.8%	3 18.8%
Normal	15	0 .0%	1 6.7%	1 6.7%	13 86.7%

Table 5. Discriminant ratio of HPR cut-off score T> 65
and T> 70

Group(N)	HPR T> 65		HPR T> 70	
	non-ADHD	ADHD	non-ADHD	ADHD
ADHD-I type(11)	8 72.7%	3 27.3%	8 72.7%	3 27.3%
ADHD-H type(23)	10 43.5%	13 56.5%	14 60.9%	9 39.1%
Neurosis(16)	10 62.5%	6 37.5%	12 75.0%	4 25.0%
Normal(15)	15 100.0%	0 0%	15 100.0%	0 0%
Total	43 66.2%	22 33.8%	49 75.4%	16 24.6%

.   86.6%   Neurosis   37.5%   ADHD

                                                                                                          .
                              , ADHD- I type   .
        54.5%   ADHD- H type   Table 7   ADHD   HPR
    60.9%   .   ,   cut-
Neurosis   62.6%   ADHD   off score   ADHD
                              (true negative rate   T> 65   T> 70
specificity)   .   100%

    ### 4. Cut-off score에 따른 판별율   ,
    Table 5   HPR   cut- off score   .   ADHD   ADHD
                                     . HPR   cut- off   (50%)
score   T> 65   T> 70   .
                                     (100%).   ADHD   HPR
                          ADHD   T>
65   , ADHD- H   ADHD
            (56.5%)

Table 7. Discriminant ratio of HPR T> 65 and attention problems T> 65, and T> 70

Group(N)	HPR T> 65 and Attention problems T> 65		HPR T> 70 and Attention problems T> 70	
	non-ADHD	ADHD	non-ADHD	ADHD
ADHD-I type(11)	9 81.8%	2 18.2%	10 90.9%	1 9.1%
ADHD-H type(23)	15 65.2%	8 34.8%	20 87.0%	3 13.0%
Neurosis(16)	13 81.3%	3 18.8%	14 87.5%	2 12.5%
Normal(15)	15 100.0%	0 0%	15 100.0%	0 0%
Total	52 80.0%	13 20.0%	59 90.8%	6 9.2%

(50.0%)
                          ,
                  .
    Table 6   K- CBCL
            ADHD
            . Cut- off score   T>65   T> 70

        (100%).   ADHD
                  T> 65   ADHD-
I type   ADHD
        72.7%   .

Table 6. Discriminant ratio of attention problems cut-off score T> 65 and T> 70

Group(N)	Attention problems T> 65		Attention problems T> 70	
	non-ADHD	ADHD	non-ADHD	ADHD
ADHD-I type(11)	3 27.3%	8 72.7%	8 72.7%	3 27.3%
ADHD-H type(23)	12 52.5%	11 47.8%	18 78.3%	5 21.7%
Neurosis(16)	10 62.5%	6 37.5%	12 75.0%	4 25.0%
Normal(15)	15 100.0%	0 0%	15 100.0%	0 0%
Total	40 61.5%	25 38.5%	53 81.5%	12 18.5%

Table 8. Discriminant ratio of HPR T> 65 or attention problems T> 65, and T> 70

Group(N)	HPR T> 65 and Attention problems T> 65		HPR T> 70 and Attention problems T> 70	
	non-ADHD	ADHD	non-ADHD	ADHD
ADHD-I type(11)	2 18.2%	9 81.8%	6 54.5%	5 45.5%
ADHD-H type(23)	7 30.4%	16 69.6%	12 52.2%	11 47.8%
Neurosis(16)	7 43.8%	9 56.3%	10 62.5%	6 37.5%
Normal(15)	15 100.0%	0 0%	15 100.0%	0 0%
Total	31 47.7%	34 52.3%	43 66.2%	22 33.8%

cut- off score   , ADHD   .

T> 65   HPR   ADHD- I type ADHD   (27.3%)

T> 70   . Table 8   ADHD- H type ADHD   (56.

, T> 65   5%)

ADHD- I (81.8%) ADHD- H (69.6%)   . K- CBCL   ADHD- H

.   type ADHD   (47.8%)   ADHD-

T> 70   . I type ADHD   (72.7%)

                                                          .

고   찰

HPR   ADHD- H type

                                                  ADHD- I type

,   (K-

PIC)   HPR

.   (K- CBCL) AP   , HPR

                                                          .   cut- off score

.   T   65

              ADHD   ADHD

HPR   95.72% [11]

,   .   ADHD

(p< .001)   [12] .   0%

              . ADHD   ADHD- I   .

type   ADHD- H type   .

.   HPR   .

,   .   ADHD

                                          .

                                          .

                                          , ADHD

                                  .

                                          .   KPI- C   K- CBCL

        ,

              ,   HPR

                                                  .

              [14] .

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        ADHD- I type   K- PIC HPR   K-

CBCL   AP

              HPR

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A VALIDITY STUDY OF PARENT BEHAVIORAL RATING SCALES AS DIAGNOSTIC TOOLS OF ATTENTION DEFICIT/ HYPERACTIVITY DISORDER

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This study was designed to examine the validity of HPR subscale in Korean Personality Inventory for Children(KPI-C) and Attention Problems subscale in Korean Child Behavior Checklist(K-CBCL) as diagnostic tool for Attention-Deficit/Hyperactivity Disorder(ADHD).

Nineteen ADHD-1 type, twenty-three ADHD-H type, sixteen Neurosis, and fifteen normal children with the age from 6 to12 were selected based on DSM-IV, and their responses of the KPI-C and CBCL were analyzed.

Omnibus F-test results showed that there were significant differences in the F scores of HPR and Attention Problems T scores($p < .05$). But in Posthoc analysis, the HPR and AP scores in three clinical groups were significantly higher than in normal group, but there was no group difference among three clinical groups($p < .05$).

These results shows that HPR subscale and Attention Problems subscale may be useful tools for screening clinical groups(vs normal group) but there was a limit to the clinical validity of two subscales as diagnostic tools for the subtypes of ADHD.

KEY WORDS   ADHD · KPI-C · K-CBCL · HPR · Attention problems.