

## 한국판 아동용 예일-브라운 강박 척도 ; 신뢰도와 타당도 연구

### DEVELOPMENT OF KOREAN FORM OF CHILDREN'S YALE-BROWN OBSESSIVE-COMPULSIVE SCALE(CY-BOCS) : A RELIABILITY AND VALIDITY STUDY

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**목 적 :** 한국판 아동용 예일-브라운 강박 척도 (Children's Yale - Brown Obsessive Compulsive Scale : Y - BOCS)의 신뢰도와 타당도를 평가하는 것을 목적으로 하였다.

**방 법 :** 42명의 아동 (평균 나이 7.2세)을 대상으로 CY - BOCS, CGI - OCD, Leyton (Leyton Obsessional Inventory - Child Version : LOI - CV), (Child Depression Inventory : CDI), (State - Trait Anxiety Inventory for Children : STAI - C)를 평가하였다.

**결 과 :** Cronbach's  $\alpha$ 는 0.86로 CY - BOCS의 내적 일관성 신뢰도가 높았다. CY - BOCS와 CGI - OCD (r=0.88), LOI - CV (r=0.51)가, CY - BOCS와 STAI - C (r=0.25), CY - BOCS와 CDI (r=0.49)가 유의한 상관관계를 보였다. 또한 CY - BOCS의 타당도도 높았다.

**결 론 :** 한국판 아동용 예일-브라운 강박 척도 (CY - BOCS)는 아동용 예일-브라운 강박 척도 (Y - BOCS)와 유사한 신뢰도와 타당도를 보였다.

**중심 단어 :** 아동용 예일-브라운 강박 척도, 신뢰도, 타당도

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# 서론

1). 가가 22).  
 가가 23)24).  
 1.9 3.5% 2-4)  
 가 30 50% 25)26).  
 5) 가  
 7.5 12.5 6),  
 가 2 가  
 가 가 7).  
 8-10).  
 가  
 (self report questionnaire) 가  
 (clinical rating scale)

Leyton Obsessional Inventory(LOI)<sup>11)</sup>, Maudsley Obsessive Compulsive Inventory<sup>12)</sup>, 가 Yale - Brown Obsessive Compulsive Scale(Y - BOCS)<sup>13)14)</sup>, National Institute of Mental Health(NIMH) Global Obsessive - Compulsive Scale<sup>15)</sup>, Leyton Obsessional Inventory - Child Version(LOI - CV)<sup>16)</sup> 가 - (Children's Yale - Brown Obsessive Compulsive Scale : CY - BOCS)<sup>17)</sup>, Global Assessment of Severity(GAS)<sup>18)</sup>, Clinical Global Impression scale (CGI)<sup>19)</sup>

가 Maudsley<sup>20)</sup>, LOI Leyton Leyton  
 21),  
 22)  
 44

# 연구 방법

1. 연구대상  
 1998 6 2000  
 6 가  
 DSM - 1)  
 42  
 12.1±2.9 (7 18 ) 가 31  
 , 가 11 ( : 12.0  
 ±2.9, : 12.2±3.2)  
 (t = - 0.25, p>0.05).  
 7 11 , 11 15 , 15  
 ,  
 (Table 1).

**Table 1.** Age and gender distribution of children and adolescents with obsessive-compulsive disorder

| Age group       | Male | Female | Total |
|-----------------|------|--------|-------|
| 7 to 11 year    | 18   | 3      | 21    |
| > 11 to 15 year | 9    | 6      | 15    |
| > 15 to 18 year | 4    | 2      | 6     |
| Total           | 31   | 11     | 42    |

p = 0.16 by Fisher's exact test (gender and age group)

## 2. 연구방법

### 1) 연구도구

(1) Goodman 1986 CY - BOCS<sup>17)</sup>

2  
3 ( , , )

15 가  
CY - BOCS 가

Y - BOCS<sup>13)</sup> 가  
10 (semistr -  
uctured) 가  
Y - BOCS 가

BOCS (1)  
(2) 가 (3)  
(4) 가

60  
( ) 가

가  
(1) , (2) , (4)  
(3) , (4) (5)

5 가 .  
5  
, CY - BOCS  
10  
가  
, , , 가

(2) - (Clinical GI -  
obal Impression scale for Obsessive Com -  
pulsive Disorder, CGI - OCD)<sup>19)</sup>

, 7 가  
가  
가

(3) Leyton (Leyton  
Obsessional Inventory - Child Version,  
LOI - CV)  
Cooper<sup>11)</sup>가 LOI Berg  
16) 22)

44 가 ,  
4 (resis -  
tance score) (interference score)

LOI - CV  
CY - BOCS 가  
가  
(yes score) (interference score),

(4) Kovacs가

(Children's Depression Inventory : CDI)<sup>27)</sup> 가 가  
<sup>28)</sup> 가 가  
. 2 가 .

3 가 27 가 3. 결과의 분석  
1) 타당도  
(1) 42 CY - BOCS  
Cronbach's alpha  
(Spielberger<sup>29)</sup> (Spiel - ( , ),  
berger's State - Trait Anxiety Inventory for Children, Pearson (Pearson correlation coefficients)  
STAI - C) 가 <sup>30)</sup> .  
(2) (Convergent validity)  
가 CY -  
BOCS ,  
CGI - OCD , LOI Pearson

20  
3 (1 3 ) 가 가  
가 가 .  
2) 평가자 STAI - C, CDI Pearson  
가 6 가  
가  
3) 평가 Intraclass correlation  
coefficients(ICC)<sup>31)</sup> .

LOI, 연구 결과

1. CY-BOCS 및 기타 척도의 평가결과  
CY - BOCS 14.1 ±  
8.2, 10.4 ± 4.9  
24.5 ± 11.5 . CGI -  
OCD 3.9 ± 1.4 LOI - CV  
72.2 ± 28.1 . STAI - C  
37.0 ± 8.4, 37.1 ± 9.4  
CDI 16.9 ± 8.9 (Table 2).

**Table 2.** Summary of clinical assessments (N = 42)

| Instrument           | Mean ± SD   | Range    |
|----------------------|-------------|----------|
| CY-BOCS <sup>a</sup> |             |          |
| Obsession subscale   | 14.1 ± 8.2  | 0 - 33   |
| Compulsion subscale  | 10.4 ± 4.9  | 1 - 20   |
| Total score          | 24.5 ± 11.5 | 4 - 49   |
| CGI-OCD <sup>b</sup> |             |          |
|                      | 3.9 ± 1.4   | 2 - 6    |
| LOI-CV <sup>c</sup>  |             |          |
| Yes score            | 22.4 ± 6.7  | 6 - 42   |
| Interference score   | 49.8 ± 22.3 | 11 - 115 |
| Total score          | 72.2 ± 28.1 | 18 - 157 |
| SAI <sup>d</sup>     | 37.0 ± 8.4  | 23 - 52  |
| TAI <sup>e</sup>     | 37.1 ± 9.4  | 22 - 59  |
| CDI <sup>f</sup>     | 16.9 ± 8.9  | 2 - 33   |

a : Children's Yale-Brown Obsessive Compulsive Scale  
 b : Clinical Global Impression Scale-Obsessive-Compulsive Disorder  
 c : Leyton Obsessional Inventory-Child Version  
 d : State Anxiety Inventory  
 e : Trait Anxiety Inventory  
 f : Children's Depression Inventory

2. 타당도 검증

1) 내적 일치도

CY - BOCS 10 Cro -  
 nbach's alpha 0.86  
 CY - BOCS ,  
 0.66( ; 0.52 - 0.76) p<  
 0.01 . 5  
 , 5  
 0.61( ; 0.51 - 0.71), 0.84( ; 0.73 - 0.88)  
 (p<0.001). ,  
 , 0.42( ;  
 0.36 - 0.59), 0.49( ; 0.29 - 0.51)  
 (Table 3).

2) 수렴 타당도

CY - BOCS CGI - OCD  
 (r = 0.88, p<0.001), LOI  
 (r = 0.51,  
 p<0.01). LOI  
 (r = 0.36, p<0.05),  
 가 (r = 0.49, p<0.01)

**Table 3.** Correlations among CY-BOCS<sup>a</sup> item scores, subscale and total score (N = 42)

| Item         | Subscale score |             | Obsession |
|--------------|----------------|-------------|-----------|
|              | Compulsion     | Total score |           |
| Obsession    |                |             |           |
| Time spent   | 0.51**         | 0.50**      | 0.58**    |
| Interference | 0.56**         | 0.36        | 0.56**    |
| Distress     | 0.58**         | 0.56**      | 0.65**    |
| Resistance   | 0.71**         | 0.46**      | 0.70**    |
| Control      | 0.71**         | 0.59**      | 0.76**    |
| Compulsions  |                |             |           |
| Time spent   | 0.29           | 0.73**      | 0.52**    |
| Interference | 0.45**         | 0.85**      | 0.69**    |
| Distress     | 0.38*          | 0.87**      | 0.64**    |
| Resistance   | 0.47**         | 0.86**      | 0.70**    |
| Control      | 0.51**         | 0.88**      | 0.75**    |

a : Children's Yale-Brown Obsessive Compulsive Scale  
 Pearson r correlations are at the \*p<0.05 level &  
 \*\*p<0.01 level(2-tailed)

**Table 4.** Correlation of CY-BOCS<sup>a</sup> subscale and total score with score on convergent and divergent clinical rating instruments (N = 42)

| Instrument                | CY-BOCS     |             | Obsessions |
|---------------------------|-------------|-------------|------------|
|                           | Compulsions | Total score |            |
| CGI-OCD <sup>b</sup>      | 0.77***     | 0.78***     | 0.88***    |
| LOI-CV <sup>c</sup> total | 0.36*       | 0.49**      | 0.51**     |
| SAI <sup>d</sup>          | 0.17        | 0.28        | 0.25       |
| TAI <sup>e</sup>          | 0.29        | 0.52***     | 0.43**     |
| CDI <sup>f</sup>          | 0.39**      | 0.49**      | 0.49**     |

a : Children's Yale-Brown Obsessive Compulsive Scale  
 b : Clinical Global Impression Scale-Obsessive-Compulsive Disorder  
 c : Leyton Obsessional Inventory-Child Version  
 d : State Anxiety Inventory  
 e : Trait Anxiety Inventory  
 f : Children's Depression Inventory  
 Pearson r correlations are at the \*p<0.05 level  
 \*\*p<0.01 level and \*\*\*p<0.001 level(2-tailed)

(Table 4). CY - BOCS

LOI - CV  
 가 (r = 0.42,  
 p<0.01).  
 3) 변별 타당도  
 CY - BOCS STAI - C  
 가 (r = 0.25),  
 STAI - C CY - BOCS





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**DEVELOPMENT OF KOREAN FORM OF CHILDREN'S  
YALE-BROWN OBSESSIVE-COMPULSIVE SCALE(CY-BOCS) :  
A RELIABILITY AND VALIDITY STUDY**

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**Objective :** This study was carried out to evaluate the reliability and validity of the Korean form of the Children's Yale-Brown Obsessive Compulsive Scale(CY-BOCS).

**Method :** Forty-two children with obsessive-compulsive disorder(OCD)(31 boys and 11 girls, aged 7 to 18 years) were assessed with CY-BOCS. Interrater agreement was assessed by two raters in subsample(n = 20). discriminant and convergent validity were assessed by comparing CY-BOCS scores to Clinical Global Impression-OCD(CGI-OCD), Leyton Obsessional Inventory-Child Version (LOI-CV), State-Trait Anxiety Inventory for Children(STAI-C), and Child Depression Inventory(CDI).

**Results :** Internal consistency was high, measuring 0.86 for the 10 items and total score. The intraclass correlations for the CY-BOCS total, obsession, and compulsion scores were 0.94, 0.94, 0.84, suggesting excellent interrater agreement for subscale and total scores. The CY-BOCS total score showed highest correlation with CGI-OCD( $r = 0.88$ ), and significant correlation with LOI-CV( $r = 0.51$ ), Trait Anxiety score( $r = 0.43$ ), and CDI scores( $r = 0.49$ ), but it was not correlated with State-Anxiety score( $r = 0.25$ ).

**Conclusion :** The results of this study indicate that the Korean form of CY-BOCS is a reliable and valid scale for rating obsessive-compulsive symptom severity.

**KEY WORDS :** Development · Rating scale · Obsessive-compulsive disorder · Reliability · Validity.