

# 컴퓨터 과다사용 초등학생의 정신사회적 특성

- 보호자의 보고를 근거로 -

## SOCIOPSYCHIATRIC CHARACTERISTICS OF ELEMENTARY SCHOOL CHILDREN WHO USE COMPUTERS EXCESSIVELY

- ON THE BASIS OF CARERS' REPORT -

김 문 성\*† · 진 혜 경\*\*

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연구목적 :

가

방 법 :

5, 6 287

. SPSS(version

10)

결 과 :

1)

가

가

2)

가

3)

가

65

결 론 :

5, 6

가

가 가

중심 단어 :

### 서 론

1990

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, Shotton<sup>10)</sup>  
 VDT (Video Display Terminal)  
 1). Brenner<sup>4)</sup> 가  
 가  
 가,  
 가  
 가  
 (internet or computer addiction)  
 Young  
 , Young<sup>2)</sup>  
 DSM -  
 3 7  
 . 1998  
 20 (internet 가  
 addiction test) 가  
 3). Brenner<sup>4)</sup>  
 55% , 28% , 22%  
 , Griffith<sup>5)</sup> 가 5, 6  
 가 가

## 연구대상 및 방법

6). Huang Alessi<sup>7)</sup> 가 5, 6  
 가  
 1. 연구대상  
 5, 6  
 가  
 Young Rogers<sup>8)</sup>, Petrie 323  
 Gunn<sup>9)</sup> 가 , 287



7%), 6 133(46.3%) (Table 1).

2. 컴퓨터 중독 경향

38.83 ± 14.81  
 43.48 ± 15.43 35.19 ± 13.25  
 (t=4.81, df=246.64, p<0.001).  
 5 38.44 ± 15.67, 6 39.28 ± 13.78  
 Young  
 20~49 217 (75.6%), 50~79 68 (23.7%), 80 2 (0.7%)  
 (Fig. 1). 80 가 2 가

가  
 50 50

Table 1. Grade and gender distribution of subjects

Grade	Gender		Total(N, %)
	Male(N, %)	Female(N, %)	
5th	75(26.1%)	79(27.5%)	154(53.7%)
6th	51(17.8%)	82(28.6%)	133(46.3%)
Total	126(43.9%)	161(56.1%)	287(100%)

$\chi^2=3.11, df=1, p>0.05$

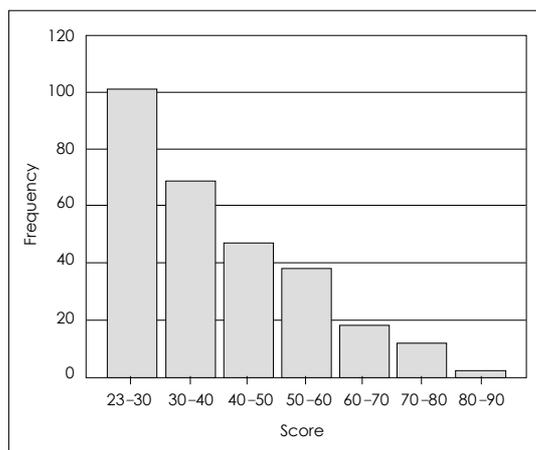


Fig. 1. The distribution of the parent-child internet addiction test score.

가  
 50 , 50  
 217 (75.6%), 70 (24.4%)  
 31.84 ± 8.18 , 60.50 ± 8.33  
 (8.4%) (16.  
 0%)가 (  $\chi^2=16.88, df=1,$   
 $p<0.001$ ).

3. 하루 평균 컴퓨터 사용 시간

30 ~1  
 가 70 (24.4%) 가 3  
 19 (6.6%)  
 가 가  
 가 (  $\chi^2=61.21, df=1,$   
 $p<0.001$ )(Table 2).

4. 컴퓨터의 주요 사용 용도

가 가  
 , (66.2%), (20.6%), (9.4%),  
 (2.4%), (1.4%)  
 .  
 (26.7%)가 (1.4%)  
 (  $\chi^2=20.74, df=1, p<0.001$ ),  
 (90.0%)가 (58.5%)  
 (  $\chi^2=23.43, df=1, p<0.001$ ).

Table 2. Comparison of computer use hours between general user group and excessive user group

Use hours per day	General user	Excessive user	Total
<30min	26(100.0%)	0( 0.0%)	26(100.0%)
<1hr	69( 95.8%)	3( 4.2%)	72(100.0%)
<1hr 30min	55( 79.7%)	14(20.3%)	69(100.0%)
<2hr	37( 66.1%)	19(33.9%)	56(100.0%)
<3hr	26( 57.8%)	19(42.2%)	46(100.0%)
>3hr	4( 21.16%)	15(78.9%)	19(100.0%)

Linear by linear association test(  $\chi^2=61.21, df=1, p<0.001$ )

(Table 3).

가 Table 4

5. 컴퓨터 중독 검사 점수와 한국아동인성검사 점수의 비교

20 ± 10.88

47.11 ± 10.18

(t=4.13, p<0.001),

2)

(Table 5).

가 65

(Table 6).

1)

53.

**Table 3.** Main computer activity by user groups

Main activities	General user	Excessive user	Total	2
	N(%)	N(%)	N(%)	
Playing game	127(58.5%)	63(90.0%)	190(66.2)	23.43*
School-related activity	58(26.7%)	1( 1.4%)	59(20.6)	20.74*
Chatting	23(10.6%)	4( 5.7%)	27( 9.4)	1.48
Down loading files	6( 2.8%)	1( 1.4%)	7( 2.4)	0.397
Other activites	3( 1.4%)	1( 1.4%)	4( 1.4)	0.001

\* : p<0.001

**Table 6.** K-PIC scale according to group type M ± SD

Scale	General user	Excessive user	t value
ERS	53.20 ± 10.88	47.11 ± 10.18	4.13**
VDL	44.91 ± 9.49	47.36 ± 9.70	- 1.87
PDL	44.68 ± 9.86	46.13 ± 10.22	- 1.06
ANX	46.75 ± 11.95	50.24 ± 11.60	- 2.14*
DEP	45.70 ± 10.47	52.31 ± 10.81	- 4.56**
SOM	45.58 ± 10.10	48.16 ± 9.77	- 1.89
DLQ	45.40 ± 9.01	51.29 ± 10.06	- 4.62**
HPR	42.35 ± 10.42	47.14 ± 12.58	- 2.88*
FAM	44.95 ± 9.74	49.27 ± 11.73	- 3.06**
SOC	50.00 ± 9.12	53.03 ± 9.04	- 2.43*
PSY	29.24 ± 14.75	34.81 ± 17.95	- 2.36*
AUT	39.14 ± 14.18	44.20 ± 13.60	- 2.62**

\* : p<0.05, \*\* : p<0.01 by Student t-test. For explanation of the abbreviations, see the foot notes to Table 5

**Table 4.** Main computer activity by gender

Main activities	Male	Female	Total	2
	N(%)	N(%)	N(%)	
Playing game	107(84.9%)	83(51.6%)	190(66.2)	35.17**
School-related activity	16(12.7%)	43(26.7%)	59(20.6)	8.50**
Chatting	2( 1.6%)	25(15.5%)	27( 9.4)	16.12**
Down loading files	0( 0%)	7( 4.3%)	7( 2.4)	5.62*
Other activites	1( 0.8%)	3( 1.9%)	4( 1.4)	0.59

\* : p<0.05, \*\* : p<0.01

**Table 5.** Correlation between total score of computer addiction test and K-PIC scales

Scale	ERS	VDL	PDL	ANX	DEP	SOM	DLQ	HPR	FAM	SOC	PSY	AUT
Total score of computer addiction test	-.291*	.170*	.111	.198*	.318*	.178*	.282*	.246*	.246*	.177*	.181*	.207*

ERS : Ego Resilience, VDL : Verbal Development, PDL : Performance Development, ANX : Anxiety, DEP : Depression, SOM : Somatization, DLQ : Delinquency, HPR : Hyperactivity, FAM : Family Interaction, SOC : Social Interaction, PSY : Psychoticism, AUT : Autism, \* : p<0.01

**Table 7.** Comparison of the percentage of those who received scores above 65 for K-PIC scores

Scale	General user	Excessive user	$\chi^2$
	N(%)	N(%)	
VDL >65	8( 3.7%)	3( 4.3%)	0.05
PDL >65	6( 2.8%)	2( 2.9%)	0.00
ANX >65	24(11.1%)	12(17.1%)	1.785
DEP >65	14( 6.5%)	9(12.9%)	2.95
SOM >65	14( 6.5%)	4( 5.7%)	0.05
DLQ >65	5( 2.3%)	8(11.4%)	10.19**
HPR >65	6( 2.8%)	9(12.9%)	10.88**
FAM >65	4( 1.8%)	2(12.9%)	14.54**
SOC >65	13( 6.0%)	3( 4.3%)	0.29
PSY >65	1( 0.5%)	2( 2.9%)	2.94
AUT >65	3( 1.8%)	5( 5.9%)	2.75

\* : p<0.05, \*\* : p<0.01 by chi-square test. For explanation of the abbreviations, see the foot notes to Table 5

(  $\chi^2=10.19$ , df=1, p=0.001),  
 (  $\chi^2=10.88$ , df=1, p=0.001), 가  
 (  $\chi^2=14.85$ , df=1, p<0.001) 65

(Table 7).

### 고 찰

가 4). 가

가

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 가 가  
 가 가  
 가  
 5, 6  
 , 가  
 14), Anderson<sup>15)</sup>,  
 Yang<sup>13)</sup>  
 가

10

13)16)

66.2%가

84.9%가

51.6%

가 26.7%, 15.5%, 4.3%, 1.9%  
 12.7%, 1.6%, 0%, 0.8%

18), 가 19), 20)

17),

가

가



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**SOCIOPSYCHIATRIC CHARACTERISTICS OF ELEMENTARY  
SCHOOL CHILDREN WHO USE COMPUTERS EXCESSIVELY**  
- ON THE BASIS OF CARERS' REPORT -

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**Objectives** : Among the studies related to excessive computer use, the studies for elementary school students are relatively rare. Because children have relatively poor ability to recognize and express themselves, the carers' information is important to assess the children. This study attempted to investigate the relationship between children's computer use and sociopsychiatric characteristics on the basis of carer's reports.

**Methods** : The subjects of this study were 287 5th- and 6th-grade students in the elementary school in Seoul. The student carers were asked to answer the questions for children's computer use, the computer addiction test modified from Young's parent-child internet addiction test, Korean Personality Inventory for Children (K-PIC). SPSS (version 10) was used to analyse the difference of computer use between genders and the relation of the computer addiction test with K-PIC.

**Results** :

1) The score of computer addiction test was significantly higher in male children than in female children and more male children compared to female children were distributed in the excessive user group.

2) The score of computer addiction test correlated with the scores of most clinical scales of K-PIC and the average scores of most clinical scale were significantly higher in the excessive user group than in the general user group.

3) More children with score above 65 in HPR, DLQ, FAM scale were distributed in excessive user group than in general user group.

**Conclusion** : The 5th- and 6th-grade elementary school students with excessive computer use were found to show more sociopsychiatric problems. With these findings we suggest that social and clinical attention to the children who use computer excessively should be required.

**KEY WORDS** : Elementary school children · Excessive computer use · Sociopsychiatric characteristics.