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(Wisconsin card sorting test)

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연구대상 및 방법

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1. 연구대상

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Table 2. Wisconsin card sorting test response variables of the offspring of schizophrenic patients, offspring of alcoholism, and normal control groups

Variables	HR(N = 28)		AC(N = 18)		NC(N = 41)		F	P*
	M	SD	M	SD	M	SD		
Trial administered	105.79 ± 20.46		102.83 ± 21.77		112.66 ± 18.34		1.91	NS
Total correct %	69.96 ± 18.37		69.38 ± 15.03		74.42 ± 10.46		1.18	NS
Total errors	34.57 ± 25.98		28.22 ± 16.55		36.27 ± 21.48		0.83	NS
% Total errors	30.04 ± 18.37		25.58 ± 10.46		30.62 ± 15.03		0.70	NS
Perseverative response	16.46 ± 11.86		13.56 ± 8.94		16.61 ± 10.33		0.57	NS
% Perseverative response	14.52 ± 8.41		12.33 ± 6.19		14.05 ± 7.31		0.50	NS
Perseverative errors	15.18 ± 10.63		12.67 ± 7.58		15.51 ± 8.82		0.63	NS
% Perseverative errors	13.42 ± 7.43		11.61 ± 5.05		13.16 ± 6.12		0.50	NS
NonPerseverative errors	19.39 ± 16.83		15.56 ± 10.84		20.76 ± 14.61		0.78	NS
% NonPerseverative errors	16.62 ± 12.31		13.97 ± 7.39		17.46 ± 10.64		0.67	NS
Conceptual level response	61.11 ± 20.33		66.67 ± 9.17		66.24 ± 18.97		0.82	NS
% Conceptual level response	61.28 ± 23.87		67.76 ± 16.21		60.88 ± 19.69		0.77	NS
Categories completed	4.68 ± 2.14		5.28 ± 1.27		4.63 ± 1.88		0.81	NS
Trial to complete 1st category	35.29 ± 38.70		17.00 ± 6.69		27.00 ± 28.60		2.10	NS
Failure to maintain set	4.39 ± 18.59		0.94 ± 0.94		1.78 ± 2.17		0.73	NS
Learning to learn	- 1.05 ± 7.41		- 1.18 ± 5.88		- 1.80 ± 7.09		0.10	NS

Results are expressed as mean ± SD
 AC : Offspring of alcoholism
 NS : Not significant

HR : High-risk, Offspring of schizophrenic patients
 NC : Offspring of psychiatrically normal parents
 * : one-way ANOVA

(5) (perseverative error response %) :
 (6) (nonperseverative error response %) :
 (7) (conceptual level response %) :
 (8) (number of completed category) :
 (9) (number of trials to complete 1st category) :
 (10) (number of failure to maintain a set) :
 (11) (learning to learn) :

3. 통계 처리
 가 One - way ANOVA
 Fisher's exact test
 결과
 (2).
 10%

Table 3. Number of cases with extreme low WCST total correct % in the offspring of schizophrenic patients, offspring of alcoholism, and normal control groups

Group	No.of low WCST total correct %(<49.22)	No.of high WCST total correct %(>49.22)
HR	4	24
AC	2	16
NC	4	37

WCST : Wisconsin Card Sorting Test
 HR : High-risk, Offspring of schizophrenic patients
 AC : Offspring of alcoholism
 NC : Offspring of psychiatrically normal parents
 *Not significant by Fisher's exact test

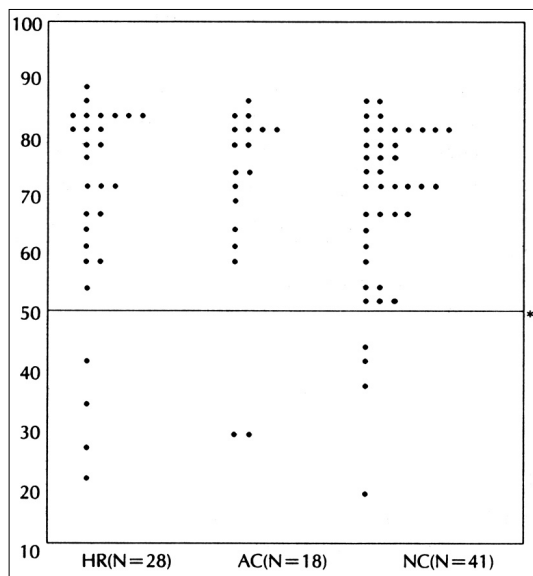


Fig. 1. Distribution of total correct response % of the Wisconsin card sorting test in the high-risk, alcoholic control, and normal control groups.
 HR : High-risk, Offspring of schizophrenic patients,
 AC : Offspring of alcoholism, NC : Normal control, Offspring of psychiatrically normal parents, * : The cutting scores of 49.22 represent the low 10th percentile of total correct response % scores for the distribution of the normal control group

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Performance of Wisconsin Card Sorting Test in the Offspring of Schizophrenic Patients

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In order to evaluate whether Wisconsin Card Sorting Test(WCST) could be used to detect the vulnerability markers of schizophrenia, three groups such as offsprings of schizophrenic patients(n = 28), offsprings of alcoholic patients(n = 18), and offsprings of psychiatrically normal persons(n = 41) were examined for their concept formation and abstract thinking by means of WCST. The results were as follows ;

1) No significant differences were noted in all variables of the WCST such as number of total administered trials, total correct response %, total error response %, perseverative response %, perseverative error response %, nonperseverative error response %, conceptual level response %, number of completed category, number of trials to complete 1st category, number of failure to maintain a set, and learning to learn among three groups.

2) There was no difference in the number of cases with extreme low WCST total correct % of lower 10% of the normal controls among three groups.

These results suggest that WCST could be an ineffective instrument for using to detect the vulnerability markers of schizophrenia.

KEY WORDS : Wisconsin card sorting test · Vulnerability marker · Schizophrenia.