

A Comparative Study of the Interest Profiles of Neurotic and Normal Children

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An attempt was made to compare the interest profiles of normal and neurotic students where age, educational level, social environment were controlled. 300 boys and 300 girls formed the sample. Chatterji's Non-language Preference Record, Kundu's Neurotic Personality Inventory and Non-language Test of Verbal intelligence were used. Results indicated that the interest profiles of boys remained invariant in the presence or absence of neuroticism but the girls behaved differently.

Interest inventories which purport to differentiate and measure major fields of interests are extensively used in educational and vocational counselling. Counselling psychologists often experience the effect of individual's personality disposition on the fields of interest or choice of a vocation. Quite often emotionally disturbed students are interested in fields which exceed their ability levels. A series of studies has been taken up to investigate the nature of the interest-personality relation. The results of such investigations are, however, mixed and do not corroborate each other consistently. Steinberg (1952), Forer (1953), Newman (1955) observed that the interest profile of emotionally disturbed individuals was significantly different from that of normal individuals. These maladjusted persons tended

to reject Mechanical, Scientific and Computational areas and their main interest was in those fields which were characterised by an emphasis on fantasy or imagination viz., Fine Arts, Musical, Literary etc., rather than on practical performance. Brown (1954) had similar experience and he concluded that 'interest and personality are inextricable'. On the other hand, researchers like Cottle (1953), Klugman (1950-1957), Weir (1951) etc., observed no definite relationship between emotional status and vocational interest pattern. Melton (1956) found very low correlations between personality and interest scores in a group of high school seniors. Triggs (1943), Cottle (1950) used Kuder Preference Record, Minnesota Multiphasic Personality Inventory, Strong's Interest Blank and Bell Personality Inventory and obtained very low positive and negative correlations between the scales of these personality and interest inventories. Tussing (1942) and Strong (1943) maintain that interest and certain personality factors might be somewhat related with each other but they were not very much definite about the nature of the relationship.

In this paper an attempt was made to compare the interest profiles of normal and neurotic school students in order to determine the extent of similarities and differences among the profiles, when the effects of age, educational level, social environment etc., were controlled. Patterson (1957) while

reviewing studies related to interest profile of emotionally disturbed individuals, commented that in most of the cases, age, education and Intelligence were not taken into account; but as these factors were found to have influence on the fields of interest, their effect should be eliminated while analysing the interest-personality relationship. The present study took this point into account and the subjects were matched accordingly. In addition to this the relation between neuroticism and fields of interest which came out as by-product, was also investigated.

The study of the interest-personality relation yields two important results:

(a) Firstly, it finds out whether any significant relation between these two variables exists or not; and if it exists, the study reveals its nature.

(b) Secondly, the typical profile of the maladjusted persons obtained through such a study may provide an important aid to the counsellor in his guidance work. If one's interest profile matches with that of the maladjusted individuals, it warrants further probing in that direction before providing any suggestion of guidance.

METHOD

Subjects: The subjects were drawn from seven schools located in the city of Calcutta. There were 300 boys and 300 girls belonging to the age group of 13 to 18 years and studying either in Class VIII or in Class IX, and most of these students came from middle class families. The subjects were given a Personality Inventory and an Interest Inventory along with an intelligence test which was utilised to match their intelligence levels.

Instruments used: There are a number of well-known standardised inventories like Kuder Preference Record, Strong's

Interest Blank, Bell's Inventory etc., which can be used to measure the interest pattern or the degree of neuroticism. But, keeping the composition and limitation of the present samples in view, two inventories viz., Chatterji's Non-language Preference Record and Kundu's Neurotic Personality Inventory, both standardised under Indian conditions, were selected for use. A brief description of the two inventories is presented here.

Chatterji's Non-language Preference Record (CNPR): It is a forced choice non-language inventory designed to measure the interest in ten different fields viz., Fine Arts, Literary, Scientific, Medical, Agricultural, Technical, Crafts, Outdoor sports and household work. There are 150 triadic items, each presenting stick figure pictures of three different activities; the respondent has to indicate the "most liked" and the "least liked" activities out of the three presented in each item. The inventory has got wide applicability in a multilingual country like India as it uses a non-language medium. It is standardised for adolescents and there is no time limit but usually the inventory can be completed within 45 to 60 minutes (Chatterji, 1962)

Kundu's Neurotic Personality Inventory (KNPI): This inventory was modelled after the scale of neuroticism of the Bernreuter's Personality Inventory (Buros 1953). It consists of 66 statements describing behaviour which may be identified as neurotic. Some of them deal with anxiety, some with nervousness and insecurity feeling, compulsion, phobia, emotional disturbances etc. For each statement the respondent points out whether he feels or behaves as indicated in the statement almost always, or frequently or rarely or never. The total score is computed by putting

different weights for different categories of responses. The scoring key was prepared by groups of psychiatrists, psychologists and psychoanalysts. As per the norm recommended for the KNPI, an individual is considered as normal if his score is below 182. The score range of slightly neurotic individuals is 182 to 215 and that for moderately neurotic ones is 216 to 240. An individual is marked as highly neurotic if his score is 241 or above that. The inventory is in English and it was, however, translated and adopted in the local language viz., Bengali and so it was easily applicable to the subjects under consideration. (Kundu, 1964; Mitra, 1970).

Non-language Test of Verbal Intelligence (NLTVI): It is a non-language test designed to measure the verbal ability of students reading in Class-VIII or Class-IX and belonging to the age group of 13 to 16 years. There are four parts in this test which are separately timed. All total there are 62 items which are to be answered within 45 minutes. It is observed that NLTVI has fairly high predictive validity, related to a criterion of school achievement. Its correlation with the Verbal Reasoning Test of the Differential Aptitude Test Battery (Bennett, Seashore and Wesman, 1963) was .56 (Chatterji and Mukerjee, 1968).

As stated earlier an intelligence test was used to match the ability level of the different groups used and the test is briefly described here.

Results: Correlations between different scales of CNPR and that of KNPI were calculated separately for boys and girls and the obtained coefficients presented in Table-1

TABLE 1
Correlations between KNPI and CNPR scales.

Groups	Fine Arts	Literary	Scientific	Medical	Agricultural	Technical	Crafts	Outdoor	Sports	Household work
Boys N=300	.14*	-.03	-.15**	-.03	-.04	-.14*	.04	.09	-.01	.05
Girls N=300	.14*	-.14*	-.28**	-.30**	.04	-.19**	.01	.23**	.16**	.13*

* indicates significant at the 5% level.

** indicates significant at the 1% level.

Scales like Scientific and Technical were negatively related with KNPI score both boys and girls. In the girls' group, two more scales viz., Literary and Medical were negatively related with KNPI. Significant positive relation was observed with Fine Arts scale simultaneously in boys' and girls' groups. Three more scales viz., Outdoor, Sports and Household work had similar relation in the girls' group only. It may be inferred from the observations that though the relations between different scales of CNPR and KNPI were not very high yet these cannot be neglected as out of 20 correlations, 10 were significantly different from zero either positively or negatively. Most of the significant correlations were obtained for the girls who are often found to be more

neurotic than boys. These results however, lend support to previous studies conducted in this direction.

The subjects were then categorised as 'Normal' and 'Neurotic' according to KNPI norm, and 32 percent of the boys and 33 per cent of the girls were found to belong in neurotic category. Instead of classifying the subjects in categories like 'slightly neurotic' or 'moderately neurotic' etc., they were divided under two broad heads 'neurotic' and 'normal' as otherwise the frequencies in categories like 'highly neurotic' etc., would have been negligibly small, specially for boys, to arrive at any stable result.

TABLE 2
Means and Standard Deviations of KNPI and NLTVI for different groups and the corresponding t-values.

Groups	Normal				Neurotic				t value			
	No. of cases	KNPI Mean	NLTVI s.d.	KNPI Mean	NLTVI s.d.	No. of cases	KNPI Mean	NLTVI s.d.	KNPI Normal x Neurotic	NLTVI Normal x Neurotic		
Boys	203	157.02	17.94	38.30	6.84	97	199.13	13.14	36.95	8.76	23.01**	1.34
Girls	200	164.96	14.87	33.50	6.97	100	201.58	18.12	35.83	7.63	17.52	4.03**
t-value		4.84**	1.76				1.08	0.96				

** Indicates significant at the 1% level.

Means of KNPI were higher for girls, both in normal and neurotic categories, than those for the boys but the difference was significant only for the normal groups. It lends support to the fact that in general, girls are more inclined to neuroticism than boys. So far as the intelligence level is concerned, neurotic and normal boys were

on the average equal but the two girls' groups differed. Normal girls had significantly higher mean than the neurotic ones.

The means and standard deviations of CNPR scales for each of the groups are presented in Table-3.

TABLE 3
Means and Standard Deviations for CNPR scales in Neurotic and Normal groups

Group		Fine Arts	Literal	Scientific	Medical	Agricultural	Technical	Crafts	Outdoor	Sports	Household work
Normal Boys N=203	Mean	20.87	28.36	38.33	37.07	25.29	26.85	22.01	24.83	28.29	19.49
	S.D.	8.78	7.27	14.32	14.83	6.50	9.17	7.35	12.88	11.88	7.73
Neurotic Boys N=97	Mean	22.26	27.37	38.62	37.00	24.62	26.66	22.95	25.64	28.39	20.38
	S.D.	7.84	7.05	13.27	12.65	6.18	10.00	7.38	14.10	13.46	7.51
	t-value	1.38	1.12	0.17	0.04	0.86	0.16	1.03	0.48	0.06	0.95
Normal Girls N=200	Mean	27.98	33.20	42.28	44.58	24.98	21.20	20.33	24.84	25.02	26.87
	S.D.	10.98	7.22	13.82	14.59	14.03	8.16	13.04	13.09	11.33	7.82
Neurotic Girls N=100	Mean	31.66	31.58	35.49	38.54	25.72	18.96	21.44	31.01	30.41	6.37
	S.D.	8.52	6.99	10.58	13.62	5.63	6.80	5.48	13.38	10.79	6.37
	t-value	3.20**	1.38	4.51**	3.53**	0.64	2.52*	1.04	3.78**	4.02**	3.42*

* indicates significant at the 5% level.

** indicates significant at the 1% level.

Interest profiles of normal and neurotic boys were analogous. But, the girls behaved in a different way. In seven out of ten scales, the observed differences were significant. Neurotic girls were more interested in Fine Arts, Outdoor, Sports and Household work than the normal ones; the latter group on the other hand showed higher interest in Scientific, Medical and technical fields than the former group.

As the neurotic girls were found to be less intelligent than the normal ones, the

point was further probed. In order to eliminate the effect of intelligence, if any such effect exists at all on interest profiles, the normal as well as the neurotic girls were further classified into two subgroups 'High Intelligence' and 'Low Intelligence' on the basis of NLTVI score in such a way that both normal and neurotic comparable subgroups had equal means and equal score ranges for NLTVI. Then the averages of CNPR scales for the different sub-groups were obtained and these are presented in Table-4.

TABLE 4
Means and Standard of CNPR scales High Intelligent and Low Intelligent, Normal and Neurotic Girls.

Group	Fine Arts	Lite-rary	Scien-tific	Medi-cal	Agri-cultural	Tech-nical	Cra-fts	Out-door	Spo-rts	House-hold Work	NLTVI
High Intelligent Mean	26.02	34.23	44.54	47.44	24.33	22.01	19.52	22.83	22.91	24.60	45.85
Normal Girls N=86 S.D	9.42	7.15	14.56	14.88	6.43	8.33	6.43	12.23	10.95	7.92	3.31
High Intelligent Mean	31.12	31.17	34.93	38.17	26.33	17.43	20.37	31.57	31.00	31.37	44.93
Neurotic Girls N=30 S.D	11.89	6.81	11.79	14.09	5.03	6.29	5.32	13.35	14.25	6.80	3.08
t-value	2.13	2.09	3.62	3.06	1.74	3.14	0.71	3.14	2.83	4.41	1.39
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Low Intelligent Mean	31.55	29.90	32.45	33.93	26.69	20.24	23.59	33.17	31.48	30.30	25.93
Normal Girls N=29 S.D	8.04	7.01	13.13	15.60	5.88	7.53	6.40	14.15	11.13	7.04	3.72
Low Intelligent Mean	31.17	29.71	33.88	34.88	26.88	19.46	21.71	33.71	32.38	28.54	26.17
Neurotic Girls N=24 S.D	7.95	4.84	7.90	11.53	4.98	7.25	5.35	13.47	6.61	4.74	4.00
t-value	0.17	0.11	0.46	0.24	0.12	0.38	1.12	0.14	0.34	1.07	0.22

* Indicates significant at the 5% level.

** indicates significant at the 1% level.

At low intelligence level the interest profiles of the neurotics and normals were analogous but the profiles varied widely when the intelligence level was high. Normal girls belonging to high intelligence sub-group were interested in Literary, Scientific, Medical and Technical activities whereas the highly intelligent neurotics were more interested in Fine Arts, Outdoor, Sports and Household work than the normal ones.

The neurotic and normal boys were also similarly categorised in High and low intelligence subgroups having the same mean and score range for NLTVI, but except for Agricultural scale in 'Low Intelligence' subgroups, no significant difference was observed. Low intelligent normal boys had significantly higher interest in Agricultural field than the comparable neurotic ones.

Discussion: The findings of this study are rather interesting. Some of these affirmed the earlier results while the rest did not. So far as the boys were concerned, the interest profiles remained invariant in the presence or absence of neuroticism but the girls behaved differently. This particular observation with respect to the boys is in the opposite direction to that stated by Klugman (1957), Steinberg (1955), but was similar to those of Tyler (1945) and Fowler (1945) etc.

The 'most liked' activities of the boys were Scientific and Medical and the 'least liked' ones were Household work, Fine Arts and Crafts. This was equally true for neurotic and normal boys.

The picture was somewhat different for girls. Both normal and neurotic girls were highly interested in Medical and Scientific activities and least interested in Technical and Crafts. But the degree of preference varied widely. Normal girls were signi-

ficantly more interested in fields like Scientific, Medical and Technical than the neurotic ones when the latter group had higher interest in Outdoor, Sports, Household work and Fine Arts than the former one. The results affirmed the observations of many others like Foley (1955), Forer (1953) and Steinberg (1952) who stated that "emotionally disturbed persons tend to reject... mechanical, computational and clerical as well as scientific activities... They tend to prefer... literary persuasive and musical activities." But, these researchers dealt with male population only while this particular result was obtained with girls.

Normal and neurotic boys had equal level of intelligence as revealed through the observed difference between NLTVI means which were insignificant but this was not true in case of girls. Hence, the girls were further categorised making the mean and score ranges of NLTVI in the comparable subgroups equal. This ensured elimination of the source of error due to variation in intelligence level. The procedure helped in revealing some important aspect of interest-neuroticism relation. At low intelligence level the interest profiles of the two comparable subgroups were identical but at high intelligence level they differed significantly. It pointed out the presence of interaction between intelligence, interest and neuroticism. When the boys were similarly subgrouped into 'High Intelligence' and 'Low Intelligence', equalising Intelligence level of the normal and neurotic, no difference was observed between the profiles of normal and neurotic boys except in one scale. Hence, it may be inferred that the presence of neurotic trend has no moderating effect on interest profile or is not an indication of low level of intelligence in case of boys; but so far as girls are concerned, this is found to be an important factor which is negatively related with intelligence and typically affects the interest profile.

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