

A Study of personality structure of schizophrenia patients on Rorschach Psychodiagnostic Test

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ABSTRACT

Background : The Rorschach test is a most widely used psycho-diagnostic tool by researchers and clinicians in the field of mental health. It is a very useful projective test to assess the structure of personality with particular emphasis on how individuals construct their experiences and meaning assigned to their perception. Schizophrenia is a psychiatric disorder in which thought and perceptual disturbances are quite common. A sudden change in personality and behaviour occurs when patients with schizophrenia lose touch with reality.

Aim : This study was designed with the aim to assess and compare Rorschach response pattern in the cases with schizophrenia and normal controls.

Method : The sample consisted of 30 patients with schizophrenia and 30 normal subjects selected by using purposive sampling technique. Rorschach Inkblot Test was administered on patients and normal subjects to assess the structure of the personality. General Health Questionnaire-12 (GHQ) was administered as a screening tool in the group of normal control subjects.

Results : Results showed that there is a significant difference between patients with schizophrenia and normal control subjects in terms of variables of Reaction Time, Location, Developmental Quality, Determinants, Contents, Form Quality, Popular Responses and Special Scores.

Conclusion : In comparison to normal control subjects, patients with schizophrenia exhibited significant poor performance on Rorschach Psycho-diagnostic Test and on the basis of this poor performance, patients with the schizophrenia could be differentiated from the normal control subjects.

Key Words : Rorschach profile, schizophrenia, personality

INTRODUCTION

Personality refers to the patterns of thoughts, feelings, social adjustments and behaviours consistently exhibited by an individual over time that strongly influences one's expectations, self-perceptions, values, attitudes and predicts one's

reactions to people, problems and stress. Rorschach Test has been considered as a well known and most widely used projective test for the assessment of personality and diagnostic evaluation in various psychiatric disorders. It is extensively used to unearth the deep rooted emotional conflicts that are not manifested in the form of overt behaviour (Verma & Mishra, 2002). Through Rorschach Test, individual projects about his conflict, motives, intellect, coping strategy and other aspects of personality. Schizophrenia is considered to be

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the major psychiatric illness characterized by gross distortion of reality, the disorganization and fragmentation of perception, thought, emotion and withdrawal from social interaction (Coleman & Broen, 1975). There has been much research and discussion on the personality characteristics of patients with schizophrenic disorders who have been found to have problems in different areas of personality functioning. The Rorschach provides both specific and general knowledge about different areas of personality functioning, such as coping style, emotions, managing stress, mediation, ideation, self-perception, and interpersonal relationships (Exner, 2003).

Studies have been done by researchers to study the Rorschach response pattern in schizophrenia patients. In a study done by Li QX (1989) it was found that there is a distinct difference between the patients with schizophrenia and the normal subjects among 8 variables (R, D, F, F+%, X%, Fc, Sum C', pair responses) where patients with schizophrenia scored lower than the normal subjects. Singh and Shukla (1992) have observed a statistically significant difference in mean scores of both the groups on the variables of D (location), F (Form), H (Human), An (Anatomy), Sex and Bt (Botany) responses, chronic schizophrenics gave more positional, bizarre responses and attributed personal meanings to the responses and less productivity in schizophrenic subjects. Gomilla (2011) studied the Rorschach response pattern in 54 chronic schizophrenia patients where $L > 5$; $R < 14$; $X + \% > 70\%$; few M, no M- and no level 2 special codes was found mainly in the protocols of chronic patients.

The present study has been undertaken with the aim to assess the Rorschach response pattern in patients with schizophrenia.

METHODOLOGY

SAMPLE

The sample consisted of 30 patients with schizophrenia diagnosed as per ICD-10 DCR criteria

and of 30 normal control subjects. Participants were selected through purposive sampling technique.

TOOLS USED

Socio Demographic and Clinical data sheet Rorschach Psychodiagnostics General Health Questionnaire - 12

PROCEDURE

After having informed consent, patients of schizophrenia group and normal controls were selected. Schizophrenia patients were included as per the ICD-10 DCR criteria. Normal control subjects were screened with the help of General Health Questionnaire (GHQ-12). Information about socio demographic data and clinical details was collected by using the socio demographic and clinical data sheet from the drawn sample. After that Rorschach Psycho-diagnostic Test was administered individually to all the participants to assess the personality structure. Rorschach protocols were scored using Exner Comprehensive System (1974).

STATISTICAL ANALYSIS

Scores thus obtained were analyzed with Statistical Package for Social Sciences (SPSS-17). Descriptive statistics (percentages and mean), Chi-Square and t-test were used to compare the groups of schizophrenia and normal control subjects.

RESULTS AND DISCUSSION

Schizophrenia patients and normal control subjects were matched with respect to age, sex, education, marital status, domicile where no significant difference has been found among these variables between schizophrenia patients and normal control subjects. It has also been observed that majority of the patients with schizophrenia were unemployed (43.3%) because due to illness, the patients could not manage their occupation for their severity of behavioural and bizarre symptoms even at their workplace. In the group of normal control subject majority were employed (50%) and the remaining

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were mostly housewife and students (50%) who are able to manage their occupation and daily activities properly. The difference has been found to be significant at 0.01 level. The age of onset of patients with schizophrenia ranges from 24 years to 40 years with a mean of 32.70 and standard deviation of 4.79. In case of mode of onset, majority of the patients (50%) were having insidious mode of onset, whereas 46.7% were of chronic mode and 3.3% having acute mode of onset.

Normals: $M=2.36\pm 3.03$; $t=2.16$, $p<0.01$) as supported by previous studies by Priyamvada et al., (2009). It is also evident from the table that the patients with schizophrenia have given high number of space responses indicating negativism, difficulty in handling anger, oppositional tendencies and possible paranoid tendencies than normal control subjects and the difference is found to be significant statistically (Schizophrenia: $M=1.26+1.31$; Normals: $M=0.36+0.66$; $t=3.34$, $p<0.01$) and this finding is supported by previous studies by Exner (2003).

Table 1 : Rorschach Profile of Schizophrenic Patients and Normal Control Subjects in terms of Location

Subjects Rorschach Variables	Schizophrenia Patients (N=30) Mean + SD	Normal Control Mean + SD Subjects (N=30)	df	't' value
Reaction Time (RT)	29.71+17.64		58	2.11**
Number of Responses (R)	21.53±5.79	20.83±4.80	58	0.50ns
Whole Responses (W)	5.50±2.33	6.63±2.65	58	1.75ns
Common Detail Responses (D)	10.66±3.55	11.53±3.98	58	0.88ns
Minor Detail Responses (Dd)	4.40±4.15	2.36±3.03	58	2.16**
Space Responses (S)	1.26+1.31	0.36+0.66	58	3.34**

**** $p<0.01$ level, ns-not significant**

Table 1 showed that there was significant difference between the two groups in context of reaction time, minor detail responses and space responses. It is evident from the table that average reaction time was delayed in the cases of patients with schizophrenia which indicate that their speed of the mental processing was slow as compared to the normal control subjects and the difference has been found to be significant statistically (Schizophrenia : $M=29.71+17.64$; Normals : $M=22.42+6.73$; $t=2.11$, $p<0.01$). This finding is consistent with the study by Chaudhury et al., (2006). It is quite obvious from the table that minor detail responses (Dd) have been found to be higher in patients with schizophrenia which suggests an attempt to narrow down their perceptions of their environment to make these perceptions more congruent with their inner world than normal control subjects and the difference is significant statistically (Schizophrenia: $M=4.40\pm 4.15$;

Table 2 showed that there was significant difference between the two groups in context of DQ+ and DQv variables. It is found from the table that the patients with schizophrenia showed less DQ+ responses indicating that the schizophrenia patients were poorly adjusted with inaccurate observation about reality than the normal control subjects and the difference is found to be significant statistically (Schizophrenia : $M=2.56+1.47$; Normals : $M=3.76+2.04$; $t=2.60$, $p\leq 0.01$). It is also quite obvious from the table that the patients with schizophrenia produced high proportion of DQv responses indicating immature thinking than normal control subjects and the difference was found to be statistically significant (Schizophrenia: $M=2.16\pm 2.26$; Normals : $M=1.06\pm 1.38$; $t=2.27$, $p<0.05$). This result was supported by previous studies by Exner (1993). Table 3 shows that there was significant difference between the two groups in context of Form, Human

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Movement, Animal Movement, Pure Color and Shading responses and Pair responses. It is evident from the table that the patients with schizophrenia showed high number of form responses indicating the patients inability to remove their affect from their experience but less than the normal control subjects and their difference was found to be statistically significant (Schizophrenia : $M=7.43+2.04$; Normals;

the normal control subjects showing high fantasy level, poor adaptive abilities and their difference is found to be significant statistically (Schizophrenia : $M=3.53+1.63$; Normals: $M=2.43+0.97$; $t=3.16$, $p<0.05$) as suggested by studies done by Dao & Prevatt (2006). From the table, it is seen that the patients with schizophrenia produced more FM responses indicating a high need of impulse gratification and a

Table 2 : Comparison of Developmental Quality (DQ) Scores of responses among Schizophrenia Patients and Normal Control Subjects

Subjects Rorschach Variables	Schizophrenia Patients (N=30) Mean + SD	Normal Control Subjects (N=30) Mean + SD	df	't' value
DQ Synthesized Responses (+)	2.56+1.47	3.76+2.04	58	2.60**
DQ Ordinary Responses (o)	16.76±5.81	15.96±4.74	58	0.58 NS
DQ Synthesized Responses (v/+)	0.03±0.18	0.03±0.18	58	0.00 NS
DQ Vague Responses (v)	2.16±2.26	1.06±1.38	58	2.27*

* $p<0.05$ level, ** $p<0.01$ level, NS- not significant

$M=8.90+2.86$; $t=-2.28$, $p<0.01$) as supported by a study done by Chaudhury et al., (2006). It is also quite obvious from the table that the schizophrenia patients gave high M responses but majority of which were of poor form quality as compared to

conflict in impulse life and of thoughts and feelings occurring beyond the person's control than normal control subjects and their difference was found to be statistically significant (Schizophrenia: $M=3.03+1.21$; Normals : $M=2.43+1.07$; $t=2.02$, $p<0.01$) as supported

Table 3 : Rorschach Profile of Schizophrenic Patients and Normal Control Subjects in terms of Determinants

Subjects Rorschach Variables	Schizophrenia Patients (N=30) Mean + SD	Normal Control Subjects (N=30) Mean + SD	df	't' value
Form (F)	7.43+2.04	8.90+2.86	58	2.28**
Human Movement (M)	3.53±1.63	2.43±0.97	58	3.16*
Animal Movement (FM)	3.03±1.21	2.43±1.07	58	2.02**
Pure Color Response (C)	2.26±1.43	1.30±1.34	58	2.69*
Pure Shading Response (Y)	0.90+1.12	0.20+0.40	58	3.20*
Pair Response (2)	2.00+1.59	3.16+2.05	58	2.45*

** $p<0.01$ level, * $p<0.05$ level

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by previous studies done by Chaudhury et al., (2006). High color responses are found in patients with schizophrenia patients indicating poor emotional control, disorganized emotion, over reactivity, lability of emotion, impulsivity than normal control subjects and their difference is found to be significant statistically (Schizophrenia : $M=2.26\pm1.43$; Normals : $M=1.30\pm1.34$; $t=2.69$, $p<0.05$) and similar results have been found in studies done by Chaudhury et al., (2006). Patients with schizophrenia have exhibited high shading responses indicating greater sense of being overwhelmed, helplessness, constrained expression of emotions, a sense of resignation to life events and an attempt to create distance between oneself and the environment than

proportion of XA% as evident from the table than the normal control subjects and the difference was found to be significant statistically (Schizophrenia: $M=0.70\pm0.10$; Normals: $M=0.94\pm0.04$; $t=-12.06$, $p<0.05$) indicating that the schizophrenia patients produced less number of responses which are in conformity with the blot areas as supported by previous studies done by Dao & Prevatt (2006). From the table it is seen that patients with schizophrenia has given less proportion of WDA% than normal control subjects and the difference has been found to be significant statistically (Schizophrenia : $M=0.57\pm0.12$; Normals : $M=0.65\pm0.11$; $t=2.74$, $p<0.05$) indicating that the schizophrenia patients has used form, less appropriately for W and D responses than

Table 4 : comparison of fq % of responses among schizophrenic patients and normal control subjects

Subjects Rorschach Variables	Schizophrenia Patients (N=30) Mean \pm SD	Normal Control Subjects (N=30) Mean \pm SD	df	't' value
Form Appropriate Extended (XA%)	0.70 \pm 0.10	0.94 \pm 0.04	58	12.06*
Form Appropriate Common Areas (WDA%)	0.57 \pm 0.12	0.65 \pm 0.11	58	2.74*
Distorted Form (X-%)	0.29 \pm 0.10	0.05 \pm 0.04	58	12.02*
Conventional Form Use (X+%)	0.50 \pm 0.09	0.76 \pm 0.09	58	10.71*
Unusual Form Use (Xu%)	0.19 \pm 0.06	0.18 \pm 0.05	58	0.68

* $p<0.05$ level

normal control subjects and their difference has been found to be statistically significant (Schizophrenia : $M=0.90\pm1.12$; Normals : $M=0.20\pm0.40$; $t=3.20$, $p<0.05$) as supported by previous studies by Exner (1993). Patients with schizophrenia have produced low pair (2) responses indicating low sense of self-pride, negativistic feeling and difficulties in maintaining deep and meaningful relationships than normal control subjects and the difference was found to be significant statistically (Schizophrenia : $M=2.00\pm1.59$; Normals : $M=3.16\pm2.05$; $t=2.45$, $p\leq 0.05$) as previous studies by Exner (1991). Table 4 showed that there was significant difference between the two groups in context of XA%, WDA%, X-% and X+% variables. Patients with schizophrenia have produced less

normal control subjects as supported by studies done by Dao & Prevatt (2006). The patients with schizophrenia have produced less good form quality responses (X+%) as found from the table than the normal control subjects and their difference was found to be statistically significant (Schizophrenia: $M=0.50\pm0.09$; Normals: $M=0.76\pm0.09$; $t=10.71$, $p<0.05$) indicating that the schizophrenia patients have poor intellectual capacity, poor ego control and poor touch with reality and the finding is in agreement with Priyamvada et al., (2009). As found from the table, the patients with schizophrenia have also produced more poor form quality responses (X-%) than normal control subjects and the difference has been found to be significant

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statistically (Schizophrenia: $M=0.29+0.10$; Normals: $M=0.05+0.04$; $t=12.02$, $p<0.05$) as supported by previous studies done by Exner (1993).

Table 5 showed that there was significant difference between the two groups in context of Human details (H), Animal details (A),

difference is significant statistically (Schizophrenia: $M=3.40+3.29$; Normals: $M=2.06+1.31$; $t=2.05$, $p<0.01$) and this finding is supported by a previous study by Brar(1970). Schizophrenia patients have also shown less household responses than normal control subjects and the difference was found to be statistically significant (Schizophrenia: $M=0.13+0.50$; Normals:

Table 5 : Comparison of content of responses, popular responses among schizophrenic patients and normal control subjects

Subjects Rorschach Variables	Schizophrenia Patients (N=30) <i>Mean ± SD</i>	Normal Control Subjects (N=30) <i>Mean ± SD</i>	df	‘t’ value
Whole Human (H)	3.26 ± 1.74	5.03 ± 2.34	58	3.31*
Whole Animal (A)	7.96 ± 3.13	4.20 ± 1.74	58	5.74*
Anatomy (An)	3.40 ± 3.29	2.06 ± 1.31	58	2.05**
Cloud (Cl)	0.66 ± 0.34	0.13 ± 0.75	58	3.50*
Household (Hh)	0.13 ± 0.50	0.53 ± 0.93	58	2.05**
Landscape (Ls)	0.43 ± 0.25	0.06 ± 0.85	58	2.24**
Popular Responses (P)	2.56 ± 1.38	4.03 ± 1.47	58	3.97*

* $p<0.05$ level, ** $p<0.01$ level

Anatomy (An), Art, Cloud (Cl), Household (Hh), Landscape (Ls) variables and Popular (P) responses. It is found from the table that the patients with schizophrenia have produced low number of human responses indicating poor interpersonal relationships than normal control subjects and the difference is found to be significant statistically (Schizophrenia : $M=3.26+1.74$; Normals : $M=5.03+2.34$; $t=3.31$, $p<0.05$) and is supported by studies done by Exner (1993). It is quite obvious from the table that the patients with schizophrenia have produced high animal responses indicating predictable, stereotyped manner of approaching the world than the normal control subjects and the difference was found to be statistically significant (Schizophrenia : $M=7.96 \pm 3.13$; Normals : $M=4.20 \pm 1.74$; $t=5.74$, $p<0.05$) as supported by previous studies by Exner (1974). It is also found from the table that the schizophrenia patients produced more anatomy responses indicating bodily preoccupation than normal control subjects and the

$M=0.53+0.93$; $t=2.05$, $p<0.01$). These manmade object responses found in schizophrenic conditions indicate poor integration of reality (Klopfer & Davidson, 1962). Patients with schizophrenia have shown more cloud responses than normal control subjects with a statistically significant difference (Schizophrenia : $M=0.66+0.34$; Normals : $M=0.13+0.75$; $t=3.50$, $p<0.05$) and more landscape responses than normal control subjects with a statistically significant difference (Schizophrenia : $M=0.43+0.25$; Normals : $M=0.06+0.85$; $t=2.24$, $p<0.01$). A high proportion of these contents suggest withdrawn, alienation and difficulties related to social isolation as per previous studies by Exner (1993). It is seen from the table that the patients with schizophrenia showed less number of popular responses suggesting their inability to conform to social norms, poor reality contact, poorly adjusted, aloof from their environment than normal control subjects and their difference is found to be significant statistically (Schizophrenia : $M=2.56+1.38$; Normals : $M=4.03+1.47$; $t=3.97$,

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$p < 0.05$) and is supported by previous studies (Priyamvada et al., 2009). Table 6 showed that there was significant difference between the two groups in context of DV1, DV2, DR2, INCOM1, FABCOM1, AG variables. From the table, it is found that the patients with schizophrenia have shown more DV1 responses than normal control subjects with a statistically significant difference (Schizophrenia : $M=0.40 \pm 0.85$; Normals : $M=0.03 \pm 0.18$; $t=2.29$, $p < 0.05$), more INCOM1 responses than normal control subjects with a statistically significant

supported by previous studies by Exner (1993). From the table it is also evident that the patients with schizophrenia produced more aggressive responses indicating that the patients' interactions are likely to be forceful, aggressive and even hostile than the normal control subjects and their difference is found to be statistically significant (Schizophrenia: $M=0.90 \pm 0.70$ Normals: $M=0.30 \pm 1.15$; $t=2.43$, $p \leq 0.01$) and is supported by previous studies by Exner (1993). From the above study it has been found that the

Table 6 : comparison of special scores of responses among schizophrenic patients and normal control subjects

Variables	Schizophrenia Patients (N=30) <i>Mean ± SD</i>	Normal Control Subjects (N=30) <i>Mean ± SD</i>	df	t
Deviant Verbalization (DV1)	0.40±0.85	0.03±0.18	58	2.29*
Deviant verbalization Level 2 (DV2)	0.23±0.56	0.00±0.00	58	2.24*
Deviant Responses Level Two (DR2)	0.23±0.62	0.00±0.00	58	2.04*
Incongruous Combination (INCOM1)	0.20±0.55	0.00±0.00	58	1.98*
Fabulized Combination (FABCOM1)	0.40±0.77	0.00±0.00	58	2.84**
Aggressive Movement (AG)	0.90±0.70	0.30±1.15	58	2.43**

* $p < 0.05$ level, ** $p < 0.01$ level

difference (Schizophrenia : $M=0.20 \pm 0.55$; Normals : $M=0.00 \pm 0.00$; $t=1.98$, $p \leq 0.05$), more FABCOM1 responses than normal control subjects with a statistically significant difference (Schizophrenia : $M=0.40 \pm 0.77$; Normals : $M=0.00 \pm 0.00$; $t=2.84$, $p < 0.01$) indicating mild cognitive disturbances in patients with schizophrenia. Patients with schizophrenia have produced more DV2 responses indicating moderate cognitive distortions than normal control subjects and the difference has been found to be significant statistically (Schizophrenia : $M=0.23 \pm 0.56$; Normals : $M=0.00 \pm 0.00$; $t=2.24$, $p < 0.05$). Patients with schizophrenia have produced more DR2 responses indicating severe cognitive distortion than normal control subjects and the difference has been found to be significant (Schizophrenia : $M=0.23 \pm 0.62$ Normals : $M=0.00 \pm 0.00$; $t=2.04$, $p \leq 0.05$). These findings are

CONCLUSION

Patients with schizophrenia showed delayed reaction time, narrowing of perceptions, oppositional tendencies, poorly adjusted, immature thinking, poor emotional control, poor coping ability, helplessness, poor reality contact, impaired interpersonal relationships, stereotyped approach of thinking, inability to conform to social norms, severe cognitive disturbances than normal control subjects.

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