

Characteristics of Thought Disorder in Schizophrenia: A Comparative Study

By: Y. Rakhawy; Yousreya Amin; E. Hamdi; R. Mahfouz;
M. Howaidi and M. Arafa

ABSTRACT

Using six psychometric tests and clinical tools, thought disorder in 20 schizophrenic subjects was compared with homogenous contrast groups. These are namely 10 patients with personality disorder and 10 normal control subjects. Whereas the progressive Matrices, the Word Association and the Concept Formation tests did not show significant differences, the Proverb test, the Free Verbalization Interview and Word Meaning test documented the presence of significant differences between the three populations.

According to the results, disordered thinking is not unique to schizophrenia. The characteristics differentiating thought disorder in each of the three groups could be vagueness, perseveration, paucity of responses and the overall deviancy of speech which represent a continuum where schizophrenics are the most disturbed, normal controls the least and personality disorder patients have an intermediate position.

INTRODUCTION

For decades thought disorder has been regarded as a primary or fundamental symptom of schizophrenia (Bleuler, 1911; Mayer Gross et al., 1969; Noyes and Kolb, 1963). Willis (1976) stresses that "... when schizophrenic thought disorder is present in someone who has no organic brain disease then the diagnosis of schizophrenia is nearly certain". However, he expresses an observation that he finds consistent with clinical data when he writes that "not all schizophrenics have thought disorder". Harrow and Quilan (1977c) state that the severe degrees of thought disorder can still be

considered as high probability sign of schizophrenia, but mild degrees cannot.

From an opposite perspective, it has been traditionally assumed that non-schizophrenics do not have disordered thinking. Recently such a thesis has been questioned by many researchers. According to Harrow and Quilan (1977) acutely ill non-schizophrenics may show evidence of thought disorder but to a milder degree than acutely ill schizophrenics. Moreover, Reilly et al. (1975) have concluded with vagueness of ideas and gaps in communication (as a measure of careless, imprecise, and disorganized communication) are present in the speech of acute schizophrenic patients as well as in the speech of acute non-schizophrenic patients but to a milder degree. Harrow et al. (1972) have also found that bizarre thinking was relatively absent in the non-schizophrenic patients, personally overinvolved thinking was present but to a higher degree among the latter group; however, the schizophrenic patients tended to become more concrete than the non-schizophrenic patients. In all these studies, the contrast groups were heterogeneous, being composed of patients with different diagnosis.

The aim of the present study is to test the hypothesis suggesting that thought disorder is not unique to schizophrenia. Moreover, through the adoption of a new approach, that is the comparison of thought disorder in a group of schizophrenic patients with two homogenous contrast groups, it attempts to look for the characteristics that may distinguish thought disorder in schizophrenic patients.

MATERIAL, AND METHOD

The sample consisted of twenty schizophrenic patients, ten patients with personality disorder and ten normal subjects. The mean age of the sample was 28.5 (with a range from 18y to 39y). All subjects were males.

1. *Characteristics of the Schizophrenic sample are found in Rakhawy et al. (1983a).*

II. *Characteristics of the sample with personality disorder*

The criteria of diagnosis of the ten subjects with personality disorder were adopted from the *DMP-I (1975)*. The diagnoses were as follows: antisocial personality pattern disorder (4), other personality disorders, and post-psychotic (4), inadequate personality disorder (1), and one case with sexual deviation (attempted rape). The mean age of the group was 25.6y (with a range from 18 to 39y). The mean duration of education for such a group was 9.9y (with a range from 8 to 13y). Eight cases were single, one was married and one divorced. Six cases were unemployed and four cases were students.

III. *Characteristics of the control sample (Normal subjects)*

Normal subjects were included in this study if they:

- a. Give no history of previous psychiatric complaint, disorder and/or consultation.
- b. Have a negative family history, have a regular work record and take advantage of ordinary vacations.

The mean age of the sample was 30.8y (with a range from 19y to 38y). The mean duration of education was 12.8y (with a range from 9y to 15y). **Six** subjects were single and **4** subjects were married. All subjects were employed.

Details of the demographic characteristics of the three populations are found in Table (I).

Each of the 40 cases was subjected to a battery of clinical tools and psychometric tests:

1. The progressive matrices.
2. **A** word association test
3. **A** free verbalization interview.
4. **A** word meaning test.
5. **A** proverb test (Rakhawy's proverb test).
6. The concept formation test.

Table 1: Demographic characteristics of the Three Groups

	Schiaophrenic Patientr		Personality Dis. Sample order		Average Normal Sample	
	N=20	%	N=10	%	N=10	%
Age						
15-19	1	5%	2	20%	1	10%
20-24	4	20%	2	20%	0	0%
25-29	6	30%	4	40%	4	40%
30-34	7	35%	1	10%	2	20%
35-39	2	10%	1	10%	3	30%
Educational level						
Prep. certificate	1	5%	0	0%	-	-
Did not complete high school	2	10%	2	20%	-	-
Complete high school	4	20%	3	30%	-	-
Some education beyond high school	10	50%	4	40%	2	20%
College graduates	3	15%	1	10%	8	80%
Marital Status						
Single	10	90%	8	80%	6	60%
Married	1	5%	1	10%	4	40%
Divorced	1	5%	1	10%	-	-
Occupation						
Unemployed	9	45%	6	60%	-	-
Students	7	35%	4	40%	1	10%
Other Occupations	4	20%	0	0%	9	90%

1. The Progressive Matrices

The total score for each subject was used for the matching of the variable of intelligence for the three groups. Intelligence is considered as an attempt determinant of abstraction (*Harrow et al., 1974*).

2. The Word Association Test

Eight stimulus words that represent broad concepts were selected. The recorded and transcribed associative responses were classified into common, remote, or idiosyncratic according to the extent to which they come near or go far from common associations.

Details concerning the administration of the free verbalization interview (3), the word meaning test (4) (1983b) and the proverb test (5) (1983a) are found in *Rakhawy et al. (1983a and b)*.

3. The Concept Formation Test (Vigotsky-Semenoff test)

Scores of performance were calculated according to the following formula: Score = time (min) ÷ 5 (clues) ÷ 10 (Grade-1) (*Hana, 1974*).

Matchirig of the Sample

The schizophrenic sample and the two contrast groups were matched as regards intelligence and age. The mean scores of the Progressive Matrices of the schizophrenic subjects, the patients with personality disorder and the normal control group (38.3; 37.5 and 46.5 respectively) did not show significant difference ($F = 2.36, p > 0.10$). The mean ages for the schizophrenic subjects, the patients with personality disorder and the normal control group (28.75; **25.6** and 30.8 respectively) showed no statistical significance between the three populations ($F = 1.93, P > 0.16$). Using the mean duration of education for the schizophrenic patients, the patients with personality disorder and the normal control group (**10.85**; 9.9 and 12.9' ys respectively), the differences were found to be statistically significant ($F = 4.87, P > 0.05$).

RESULTS

I. Word Association Test (Table 2)

Schizophrenic patients were slightly less capable of making common associations to stimulus words (62.8%) than normals (65.4%). They make more idiosyncratic responses (20.5% vs 14.1%), but less remote associations (16.7% vs 20.5%). Personality disorder subjects produced the least proportion of common responses (57.1%) and the highest proportion of remote associations (24.7%). However all these differences were statistically non significant.

Table 2: Word association test

	Schic.		Per.		Dis.		Normal		Control
	No.	%	No.	%	No.	%	No.	%	
Common responses ^a	98	62.8	44	57.1	51	65.4 ^a			
Remote responses ^b	26	16.7	19	24.7	16	20.5 ^b			
Idiosyncratic resp. ^c	32	20.5	14	18.2	11	14.1 ^c			
Total No. of resp.	156/160	100	77/80	100	78/80	100			

N.S.

- a) $z = 0.84$; 0.39 & 1.05
 b) $z = 1.46$; 0.72 & 0.62
 c) $z = 0.42$; 1.18 & 0.69

II. Concept Formation Test (Table 3)

Personality disorder subjects had the highest mean score indicating that they were the ones most impaired in the process of new concept formation. Normal controls had the lowest mean score and thus were the least impaired. Schizophrenic patients were surprisingly less

impaired than personality disorder subjects but more impaired than normal controls.

Although similar in the quantitative analysis, the performance of the schizophrenic patients and normal controls on this test was found to differ qualitatively, so that schizophrenic patients were characterized by:

- a. Failure to follow correctly one principle **for** categorization in a consistent and **goal** seeking way.
- b. Failure to describe the basis of grouping the test blocks especially when grouped on a part quality or an ill-defined one.
- c. More frequent failure to respond to prompting and failure to shift from one mode of the sorting objects **to** another (perseveration).

These aspects require a quantitative assessment in future research.

Table 3: Concept formation test

	Schie.	Pers.dis.	Norm. Contr.	ANOVA
Mean score	244.4	259.4	201.7	1.1 I

111. Free Verbalization Interview (Table 4a and b)

Table 1V-a illustrates that schizophrenic patients **had** the highest grades of most variants of loose associations that are evident in free speech and that were evaluated by the ability to complete themes or sentences and to make appropriate and smooth associative links between the different topics of the speech. One exception to such findings was L₁ (mild changes in the topic of speech within the same sentence) where it was expressed more by the personality disorder patients more than the schizophrenic subjects.

The milder degree of looseness of association appearing **as** a slight shift or jump in sentences within the **same** topic (L) was significantly higher in schizophrenic subjects than both personality disorder and

normal controls ($p < 0.05$). The severe forms of looseness of associations (L_3 , L_4 , L_5) failed to reach significance inspite of their marked preponderance in schizophrenics because of lesser overall appearance.

The analysis of the free sample for the existence of specific deviant patterns of speech revealed significant differences between the three populations. Delusional thinking was significantly higher in both schizophrenics and personality disorder subjects than normal controls ($F = 3.76$, $P < 0.05$), vagueness ($F = 9.18$, $P < 0.05$), the total number of words ($F = 10.22$, $P < 0.01$) and assessment of overall deviance of free speech ($F = 23.22$, $P < 0.01$). All differences between the three populations were found to be significant. On these measures, schizophrenic patients had the poorest performance, controls had the best with personality disorder subjects occupying an intermediate position.

Table 4a: Free verbalization interview: Various types of loose associations

Different degrees of loose Associations	Schiz.	Pers. disord.	Aver. Normal	Test of signif. ANOVA
L_1	6.37	7.93	4.40	0.53
L_2	8.38	3.41	3.14	3.49**
L_3	5.83	2.39	1.14	1.84
L_4	2.76	1.78	0.52	0.85
L_5	8.30	0.28	0.93	2.54
L_6	5.21	0.00	0.93,	0.85

* Final scores of various categories of loose associations represent the incidence of loose associations per 1000 words, based on a modification of a system used in other researches (Reilly et al., 1975).

** Statistical significant ($P < 0.05$) (Schiz. vs. per. dis. & Schiz. vs. Norm.).

Table 4b: Free verbalization interview: Measures of deviant speech patterns

	Schiz. N=18	Pers. disord. N=10	Aver. Normal N=9	ANOVA test
Gaps in communication	1.61	1.20	0.67	2.89
Private meanings	0.44	0.60	0.00	1.52
Delusional thinking	0.94	0.80	0.11	3.76*
Vagueness	1.89	1.60	0.78	3.99*
Abrupt time shifts	0.61	0.50	0.33	0.35
Repetition	1.78	1.90	1.00	2.35
Perseveration	1.83	1.00	0.33	9.18**
Number of words (Paucity)	149.17	307	377.11	10.22**
Overall deviance	5.06	3.40	1.78	23.22**

*

Statistical significance ($p < 0.05$) (Schiz. vs. pers. Dis.; Schiz. vs. Norm. and Pers. Dis. vs. Norm.).

*

Statistical significance ($p < 0.01$) (Schiz. vs. Pers. Dis.; Schiz. vs. Norm. and Pers. Dis. vs. **Norm.**).

IV. Proverb Test (Table 5)

In the process of giving the abstract meaning of stimulus proverb schizophrenic subjects got the lowest scores but the differences were not significant ($F = 1.95$). However in applying the stimulus proverb to real life situations schizophrenic patients were significantly more impaired than both groups; personality disorder subjects and controls ($F = 4.46$; $P < 0.01$). Though schizophrenic patients gave more concrete responses than the other two populations, the differences were non-significant ($F = 2.17$). Nevertheless, schizophrenic patients gave significantly more bizarre responses than either of the two groups ($F = 3.63$; $P < 0.01$).

Moreover, when the ability to correlate between the stimulus proverb and one of three choices was tested among the three

populations, performance of the schizophrenic group was the poorest, that of the control subjects the best with the personality disorder occupying an intermediate position. However, only the differences between both the schizophrenic subjects and the controls were significant (69/93, 73% vs 44/50, 88% respectively $P < 0.05$).

Table 5: Proverb test

	Schiz.	Pers. disord.	Norm. Contr.	ANOVA test
1 st order abstraction	8.25	8.80	11.10	1.95
2 nd order abstraction	4.48	6.80	8.00	4.46**
Concrete responses	4.35	3.00	1.90	2.17
Personally overinv.	1.60	1.80	0.30	1.63
Bizarre responses	4.75	2.80	0.80	3.63**

** Statistical significance ($P < 0.01$) (Schiz. vs. Pers. Dis. and Schiz. Vs. Norm.).

Scoring the frequency of hyperabstraction (with a subset of three subcategories, namely hyperabstraction, incorrect hyperabstraction and absent hyperabstraction), schizophrenic patients showed the highest frequencies on all indices. The frequencies of the first subcategory for the schizophrenic patients, the personality disorder subjects and the normal control were 14.6%, 4% and 4% respectively, of the second subcategory 14.6%, 6% and 3% respectively and of the third subcategory were 70.9%, 80% and 86%. Only the last finding was found to be statistically significant ($z = 2.04$, $P < 0.05$).

V. Word Meaning Test (Table 6a, b and c)

Both schizophrenics and personality disorder subjects showed significantly more impairment than normal control subjects in conceptualizing stimulus words 89.6% and 91 vs 79.6% ($P < 0.05$). The emotional aspects of words is significantly more affected in schizophrenics than personality subjects (52.8% vs 36.8%) but not different from normals (45.4%).

Table 6a: Affective and conative aspects of Words: Word Meaning Test

	Schiz.		Pers. Dis.		Aver. Nor.	
	No.	%	No.	%	No.	%
Conceptualization						
App. concept.*	26	10.4	11	9	21	20.4
Imp. concept.*	224	89.6	111	91	82	79.6
Total	225	100	122	100	103	100
Emotional resonance						
App. emot. res.	76	47.2	55	63.2	47	54.6
Imp. emot. res.**	85	52.8	32	36.8	39	45.0
Total	161	100	87	100	86	100
Volitional readiness						
App. vol. read.	54	31.4	36	40.9	54	63.5
Imp. vol. read.***	118	68.6	52	59.1	31	36.5
Total	172	100	88	100	85	100

- * P < 0.05 (Schiz. and pers. Dis. vs Norm.)
 ** P < 0.05 (Schiz. vs Pers. Dis.).
 *** P < 0.001 (Schiz. vs Norm.).
 P < 0.005 (Pers. Dis. vs Norm.).

Table 6b: Word meaning test: Aspects of Word Conceptualization

	Schic.		Pen. Dir.		Aver. Nor.	
	No.	%	No.	%	No.	%
Breadth of concepts*	81	36.2	44	39.6	44	53.7
Tendency towards concreteness**	32	14.3	24	21.6	20	24.4
Concreteness	30	13.4	8	7.2	2	2.4
Private meaning Personally	17	7.6	11	9.9	3	3.7
overinvolved resp.***	43	19.2	21	19.0	12	14.6
Bizarre responses	21	9.3	3	2.7	1	1.2
Total	224	100	111	100	82	100

*

P < 0.01 (Schiz..vs Norm.)

**

P < 0.05(Schiz. vs Norm.).

P < 0.05(Schiz. vs Pers. Dis.).

The amount of volition implied by the stimulus word is more impaired in schizophrenics and personality disorder subjects than normal controls (**68.6%, 59.1% vs 36.5%** respectively) ($P < 0.05$). The emotional aspects of words is significantly more affected in schizophrenics than personality disorder subjects (**52.8% vs 36.8%**) but not different from normals (**45.4%**).

The amount of volition implied by the stimulus word is impaired in schizophrenics and personality disorder subjects than normal controls (**68.6%, 59.1% vs 36.5%** respectively) ($P < 0.001$ and $P < 0.005$ respectively).

Impaired conceptualization of words was analyzed into a number of aspects and was compared in our three samples. Among these, schizophrenics were significantly more **impaired** than normals as regards the breadth of concepts ($P < 0.01$) having lesser tendency towards concreteness short of frank tendency to give more bizarre

responses ($P < 0.05$). On the latter dimension schizophrenics differed from personality disorder subjects.

Table 6c: Word meaning test: Aspects of Overall Assessment

	Schir.		Pers. Dis.		Aver. Nor.	
	No.	%	No.	%	No.	%
Consensual resp. [*]	19	11.18	9	10.23	28	32.56
Egocentric resp. ^{**}	75	44.12	39	44.32	23	26.74
Fanatic. resp. ^{***}	24	14.11	26	29.54	16	18.61
Disorganized resp. ^{****}	18	10.59	1	1.14	-	-
Unspecif. res.	34	20.00	13	14.77	19	22.09
Total num. of resp	170	100	88	100	86	100
[*] $P < 0.001$ (Schiz. vs Norm. and Pers. Dis. vs Norm.) ^{**} $P < 0.01$ (Schiz. vs Norm.). $P < 0.05$ (Pers. Dis. vs Norm.) ^{***} $P < 0.05$ (Pers. Dis. vs Schiz.) ^{****} $P < 0.01$ (Schiz. vs Pers. Dis.)						

The responses of the meaning of words were subjected to an overall assessment. The results are illustrated in Table 6-c. Though the schizophrenic and personality disorder subjects do not differ significantly from one another they are markedly lesser than normal control subjects ($P < 0.001$). Moreover, both groups gave much more egocentric responses than normal subjects ($P < 0.01$ and $P < 0.05$ respectively). Schizophrenic subjects differed from personality disorder subjects in giving more disorganized responses ($P < 0.01$) while the latter group gave a higher proportion of fanatic responses ($P < 0.005$).

DISCUSSION

This study points out that in several respects thought disorder is not unique to schizophrenia. It is measurable in a sample of personality disorder patients as well as in normal control subjects. However differences in thought processing could be elicited among the three populations.

Through the free verbalization sample, vagueness, perseveration, number of words, and an overall measure of deviant verbalization were significantly different in all directions among the three populations. These aspects of thought disorder may, therefore, be arranged along a continuum of severity that distinguishes the three populations with schizophrenic patients showing the poorest scores. These variants of thought disorder may be considered nonspecific, common place errors or imperfections in thought processes. These variants manifest more or less in normal speech and are more conspicuous in personality disorder (Reed, 1970). Considering that all the previous findings came from the free verbalization interview, such a method of study appears to be a potent tool to elucidate thought disorder.

The word meaning test revealed significantly more impairment in schizophrenia and personality disorder subjects on one hand than normal controls on the other hand. Both former groups were significantly more impaired than the latter group as regards conceptualization, volitional readiness, egocentricity and consensual responses in relation to word meanings. These measures seem to reflect what is common in thought disorder between schizophrenia and personality disorder. A closer scrutiny of these data, however, reveals that there are certain differences in the nature of impairment between the two groups. In schizophrenia impaired conceptualization of words is attributable to more bizarre and concrete responses, in personality disorder it is more related to private response, a narrowing of concepts, and a tendency towards semiconcrete responses.

The Webster Dictionary (1977) defines the meaning by "the intent of doing". Violation, therefore, need not be restricted to the observation of behaviour; it may be understood as an integral component of word meaning. Our method of assessing volitional readiness was simple, but it revealed that both schizophrenic and

personality disorder subjects are similarly impaired therein. However, the nature of impairment may be different. Whereas personality disorder subjects supply empty slogans about "doing", schizophrenics maintain their withdrawn state by emptying the meaning of words from any volitional component.

Both groups exhibited more personally overinvolved responses towards word meanings. Again, both groups exhibited a significantly higher level of egocentricity. These findings seem to reflect the inability to decentre oneself from personal needs. According to *Goldstein and Scheerer (1941)* one needs to detach oneself from one's experience in order to be able to abstract properly. It manifests in the form of personalization or privacy and when it becomes severer it may manifest in the form of bizarre concepts.

A lack of consensuality was present in both schizophrenia and personality disorder. However, it was mostly attributed to the presence of disorganized responses in the first group and to the presence of fanatic responses in the second group.

Delusional thinking appeared through the free verbalization sample to be significantly more apparent in schizophrenia and personality disorder than normal controls. However, it had a different meaning in the two groups. In personality disorder it was mostly composed of egosyntonic concealed forms of distorted conceptualization, a concept adopted by *Ey et al. (1978)*. In schizophrenia delusional thinking usually meant the appearance of concrete delusions. Overall, according to our study, thought disorder is both quantitatively and qualitatively related in schizophrenic patients and personality disorder subjects. However, severer degrees and distinct types could be found more in schizophrenic patients.

Schizophrenic subjects are distinguished significantly from the other two contrast groups by the presence of bizarreness (proverb test) and disorganized responses (word meaning test) as well as their inability to apply proverbs to real life situations and their inability to make appropriate sequential links between the topic of one sentence and the succeeding one. Bizarreness and disorganization have been emphasized as important clinical criteria in the diagnosis of schizophrenia (*Ey, 1977; et al., 1978; Rakhawy, 1979 DSM-III, 1980*).

The proverb test revealed a number of characteristic features of schizophrenic thinking. Bizarre interpretations of proverbs are common in this group of patients. This confirms with the reports of other investigators (*Wegrocki, 1960; Greg and Frank, 1967; Shinkumas et al., 1967; Shinkumas, 1970*). These authors emphasize bizarre interpretations of proverbs as more descriptive of schizophrenia than concreteness.

In our study, concreteness could not distinguish schizophrenic subjects from the other two contrast groups. Schizophrenic subjects had a significantly higher frequency of normal and abnormal hyperabstraction than control subjects. However, schizophrenic subjects were more importantly impaired when they were required to apply proverbs to real life situations. Such a measure of thought disorder is mostly dependent on the ability to shift from an abstract to a relatively concrete level or situation. According to *Goldstein (1944)* it is the ability to shift from the abstract to the concrete attitude that is mostly disturbed in schizophrenia. It is not concreteness per se but the ability to change from one mental setting to another having different levels of abstraction. The interpretation of proverbs in terms of real life situations has enabled us to measure such an operative function.

CONCLUSION

1. Thought disorder is more objectively assessed through simultaneous multiple tools examining thought disorder from different aspects.
2. Thought disorder is not unique to schizophrenia. It is measurable in normal controls and personality disorder subjects.
3. In schizophrenia, thought disorder appears both as an exaggeration of normal errors and misconceptions as well as discrete concrete qualitative abnormality that reflects a disruption rather than a limitation of concept formation.

REFERENCES

1. American Psychiatric Association (1980): Diagnostic and Statistical Manual of Mental Disorders. Third Edition (**DSM-III**), Washington: The Association.

2. **Bleuler, E.** (1911): Dementia Praecox or the Group of Schizophrenias. New York International **Universities Press**,
3. Egyptian Psychiatric Association (1975) The Diagnostic Manual of Psychiatric Disorders. (DMP-I). Cairo: The Association (1979).
4. Ey, H. (1977): Le Processus schizophrénique. In Ey, H., Aranaudies, J., Gazalis De Fontdouce, G. and **Marcians, P.** (eds.), La Notion de Schizophrénie. Paris: Desclee **De Broumer**.
5. Ey, **H.;** Bernard, P. and Brisset, Ch. (1978): Manual de **Psychiatrie**. Paris: Masson.
6. Coldstein, K. (1944): Methodological approach to the study of schizophrenic thought disorder. In Kasanin, **J.S.** (ed.), Language and Thought in Schizophrenia. New York: W.W. Norton.
7. Goldstein, K. and Scheerer, M. (1941): Abstract and Concrete behaviour: An experimental study with special tests. Psychological Monographs, Whole **No. 239**.
8. Greg, A. and Frank, G.H. (1967): An exploration of thought disorder in schizophrenia through the use of proverbs. *J. of General Psychology*, 77: 187-197.
9. Hana, M.S. (1974): Abstract Thinking in Normals, Neurotics and Psychotics. Cairo: Al Nahda El Arabia Bookshop.
10. Harrow, M.; Alder, D. and Hanf, **E.** (1974): Abstract and concrete thinking in schizophrenia during the **prechronic** phases. *Archives of General Psychiatry*, 31: 27-33.
11. Harrow, M.; Tucker J.G. and Alder, D. (1972): Concrete and idiosyncratic thinking. *Archives of General Psychiatry*, 26: 433-439.
12. Harrow, **M.** and Quinian, D. (1977): **Is** disordered thinking unique to schizophrenia ? *Archives of General Psychiatry*, 34: 15-21.
13. Mayer-Gross, **W.;** Slater, E. and Roth, **M.** (1969): Clinical Psychiatry. London: Bailliere, Tindall and Casell.
14. Noyes, A.P. and Kolb, **L.C.** (1963): Modern Clinical Psychiatry. 6th Ed. Philadelphia, London; **W.B. Saunders**.
15. Rakhawy, **Y.T. (1979): A** study in Psychopathology. **Cairo:** Dar El-Ghad (In Arabic).

16. Rakhawy, Y.T.; Amin, Y.; Hamdi, E.; Mahfouz, R. and Howaidi, M. (1983 a): Thought disorder in schizophrenia: Relation to activity and temporal dimensions. (Part I). Egypt. J. Psychiat., **6**: 76-99.
17. Rakhawy, Y.T.; Amin, Y.; Hamdi, E.; Mahfouz, R. and Howaidi, M. (1983 b): Thought disorder in schizophrenia: Relation to activity **and** temporal dimensions. (Part II). Egypt. J. Psychiat., **6**: 213-238.
18. Reed, J.L. (1970): Schizophrenic thought disorder: A review and hypothesis. Comprehensive Psychiatry, 11: 403-432.
19. Reilly, E.; Harrow, M.; Tucker, J.; Quilan, D. and Siegel, A. (1975): Looseness of associations in acute schizophrenia. Brit. J. Psychiat., **127**: 240-246.
20. Skimkumas, A.M. (1970): Reciprocal; shifts in schizophrenic thought processes. J. of Abnormal Psychology, 76: 423-426.
21. Skimkumas, A.M.; Ginther, M.D. and Smith, K. (1967): Schizophrenic responses to the proverb test: Abstract, Concrete or Autistic. J. of Abnormal Psychology, 72:128- 133.
22. Webster's New Dictionary (1977): Springfield, Massachusetts: G. and C. Merriam Company.
23. Wegrocki, H.J. (1960): Generalizing ability in schizophrenia: An inquiry into the disorders of problem thinking in schizophrenia. Archives of Psychology, 36: 254.
24. Willis, H.J. (1976): Clinical Psychiatry. London: Blackwell Scientific Publications.

AUTHORS

- Y.T. Rakhawy, M.D.; M.R.C.P. & N.D.M., Professor of Psychiatry, Cairo University, Cairo.
- Y.Amin, M.D., M.Sc. (P.M. & N.). Lecturer, Psychiatric Department, Suez Canal University.
- E. Hamdi, M D., M.Sc. (P.M. & N.) Lecturer, Psychiatric Department, Cairo University.
- R. Mahfouz. M.D., M.Sc. (P.M. & N.), D.M., Director, Dar El-Mokattam for Mental Health, Cairo.
- M. Howaidi, Ph.D., Researcher in Clinical Psychology, the National Centre for Social and Criminological Research, Cairo.

LES CARACTÉRISTIQUES DU TROUBLE DE LA PENSÉE SCHIZOPHRENIQUE: UNE ETUDE COMPARÉE

ABSTRAIT

Les troubles de la pensée chez 20 schizophrènes ont été comparés avec ceux de deux groupes homogènes, le premier étant composé de 10 malades ayant des troubles du caractère et le second étant composé de 10 sujets normaux. La comparaison fut faite par l'analyse des réponses à l'ensemble de six examens psychométriques et outils cliniques. Pendant que 1-Les Matrices Croissantes, 2-Les mots associés et 3-la formation du concept n'ont pas révélé des différences significatives, les trois autres tests psychométriques; 1-L'analyse d'un discours libre, 2-L'étude des différents aspects du sens des mots, et 3-L'interprétation des Proverbes ont montré des différences significatives.

Suivant les résultats de cette étude, les troubles de la pensée sont pas uniquement observés chez les malades schizophrènes. Ils se montrent également chez les deux autres groupes, mais le profil des troubles de la pensée diffère d'un groupe à l'autre. Les caractéristiques de chaque groupe peuvent être groupées en 5 catégories. Premièrement, au niveau de la pensée vague, de la persévération, de la pauvreté des mots, et du trouble général du discours, les trois groupes peuvent être classés sur un continuum où les schizophrènes représentent le maximum de trouble, les sujets normaux le minimum, et les sujets avec des troubles de caractère une intensité moyenne. Deuxièmement, les malades schizophrènes et les sujets avec des troubles de caractère sont significativement éloignés des sujets normaux au niveau de la présence du délire, des troubles du concept, du désordre de la notion de la volonté d'agir inclus dans le sens des mots, de l'égoïcentricité, et la consensualité des différents aspects du sens des mots. Troisièmement, les schizophrènes sont uniquement différenciés des deux autres groupes car ils représentent le plus de réponses bizarres, le plus de discours dissociés, le moins de capacité pour appliquer le sens abstrait d'un proverbe à des situations de la vie réelle et le moins de cohésion entre les idées. Quatrièmement, les sujets avec des troubles du caractère sont moins troubles au niveau de la résonance émotionnelle des mots mais ils ont exprimé plus de réponses fanatiques. Cinquièmement, les sujets normaux ont montré le plus d'enroulement au niveau de frontières des concepts, le moins de capacité pour donner un sens suffisamment abstrait des mots, et ils ont montré moins d'expression de pensée abstraite. Les sujets normaux sont plus capables que les schizophrènes de faire des corrélations correctes entre des proverbes qui ont des sens semblables.

A travers la discussion les auteurs ont essayé d'interpréter le phénomène du trouble de la pensée schizophrénique comme un désordre à la fois quantitatif et qualitatif.

الموجز

دراسة مقارنة لخصائص اضطراب التفكير فى الفصام

تقارن هذه الدراسة خصائص اضطراب التفكير لدى عشرين فصامياً بتلك التى تظهر فى عینتین متجانستین الأولى تتكون من عشرة من المرضى بإضطراب الشخصية والثانية تتكون من عشرة من الأسوياء يشكلون العينة الضابطة.

تمت المقارنة بإستخدام ستة من الإختبارات النفسية والأدوات الإكلينيكية لم تظهر من خلال بعضها (وهى إختبار المصفوفات المتتابعة وإختبار تداعى الكلمات وإختبار تكوين المفهوم إختلافات أو فروق ذات دلالة إحصائية بينما برزت الفروق الدالة إحصائياً من خلال تحليل عينة من الحديث الحر وعن طريق إختبار الأمثال العامة وإختبار خاص بدراسة الجوانب المختلفة لمعانى الكلمات.

تشير النتائج فى هذه الدراسة إلى أن إضطراب التفكير ليس قاصراً على مرضى الفصام وإنما يبدو فى إستجابات المجموعتين الآخرين ولكن بصورة مختلفة كميًا ونوعيًا. ويمكن إيجاز النتائج فى خمسة مجموعات رئيسية: أولاً: وجد أن المجموعات الثلاثة تقع على متدرج واحد يشكل الفصاميون فيه أعلى درجات الإضطراب فيما يتعلق بتواتر الأفكار المبهمة والتأثير وقلة عدد الكلمات بالإضافة إلى الإضطراب الكلى للحديث. ثانياً: يشترك الفصاميون ومضطربى الشخصية فى تواتر التفكير الضلالى وإضطراب كل من المفاهيم والإستعداد الإرادى للفعل المتضمن فى معانى الكلمات بالإضافة إلى وجود درجة عالية من التمرکز حول الذات وعدم التوافق بين الأوجه المختلفة لمعانى الكلمات. ثالثاً: يتميز الفصاميون عن المجموعتين الآخرين بوجود الأفكار الشاذة والإستجابات المتأثرة والإفتقار إلى القدرة على تطبيق الأفكار المجردة على مواقف الحياة بالإضافة إلى وجود درجة من عدم الترابط بين المعانى. رابعاً: يبدو مضطربو الشخصية أكثر تطرفاً من الأسوياء فى التعبير عن معانى الكلمات ولكنهم أقل إضطراباً من ناحية الرنين العاطفى للكلمات. خامساً: يختلف

الأسوياء والفصاميون فى عدم وضوح حدود المفاهيم بالإضافة إلى درجة منخفضة من التجريد يمكن وصفه على أنه مجرد إستعداد نحو العيانية وقدرة الأسوياء على التوفيق بين الأمثال العامة المتشابهة فإنهم يظهرون أقل قدرة من الفصامين على التجريد المتصاعد.

وتحاول هذه الدراسة من خلال مناقشة نتائج البحث المختلفة تفسير إضطراب التفكير عند مرضى الفصام على أنه إضطراب - فى ذات الوقت - كمى ونوعى.