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Assessment of Psychosis in Schizophrenia and Affective Disorders by a Locally Constructed Rating Scale

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ABSTRACT

This study tried to investigate the notion that psychosis is not synonymous with schizophrenia. Psychiatric symptoms are not unique to a particular psychiatric disorder but rather a measurable dimension underlying different disorders even those of neurosis. A sample of 117 patients labelled with the diagnosis of schizophrenia, 56 patients with affective psychoses and a control group of 25 patients with neurotic disorders were investigated. Psychosis was assessed in these patients using a locally constructed rating scale composed of five dimensions, these were: loose association, delusion, hallucination, personality deterioration and passivity experiences. The results were discussed in the light of the psychiatric profile and it was found that psychosis is found in different patterns among the studied disorders. Schizophrenia was found to be a heterogeneous disorder and bipolar affective disorder was found to be of more severe psychosis than unipolar disorder.

INTRODUCTION

The term "Psychosis" lacks precision. While it was defined in some studies as the presence of delusions and hallucinations (Waziri et al., 1983). others added formal thought disorder to the definition (Insel and Akiskal, 1986). In a broader sense, psychosis meant the presence of derealization, depersonalization, paranoid experiences, hallucinations and delusions (Chopra et al., 1986). Robins (1986) defined it as the presence of formal thought disorder, disorientation, confusion or memory loss in addition to the presence of delusion and hallucinations.

Psychosis should not be equated to schizophrenia. It is a loosely defined term that may be present in many psychiatric disorders including schizophrenia. A follow-up study of the course of psychosis in schizophrenia revealed that one third of the patients showed no psychotic activity two years after the attack while forty percent of the patients showed persistence of psychosis during the two times of follow up, two and four and a half years respectively (Harrow et al., 1985).

The present study was designed to reevaluate the concept of psychosis through the use of a locally designed rating scale, then to assess the presence of psychosis in schizophrenia, affective psychosis and a group of neurotic patients.

SUBJECTS AND METHODS

The sample of the study comprised 117 patients diagnosed as schizophrenia and 56 patients with affective psychoses; they were chosen from the out-patient clinic' and the in-patient wards of Ain Shams University Hospital and a private mental hospital. The diagnosis depended on the criteria of the ICD- 9 (WHO, 1978).

A control group consisted of 25 patients matched for age and socioeconomic standards with the study group. Members of this group were suffering from neurotic disorders according to the same classifying system (ICD-9).

The study included only male patients to overcome the different variables (like pregnancy, puerperium, contraception,...). that may affect the diagnosis and carry a possible relationship with psychiatric disturbances.

For each member of the study, a semi-structured clinical interview was carried out by two clinicians separately and independently from each other.

At the end of the interview, patients were assessed for the presence of psychosis according to a

locally-designed rating scale that was proved to be reliable by a pilot study carried out on 20 cases before its application in the research.

The rating scale is a numerical one constructed on 5 dimensions including: formal thought disorders, delusions, hallucinations; personality disintegration and passivity experiences.Each item is estimated as follows: the lowest score denotes the absence of the sign with gradual increase of the severity parallel with the increase of the score.

RESULTS

Comparison of the 5 scales between each pair of subtypes of schizophrenia

(Table 2)

Kruskal-Wallis (K W) test of significance was carried out between each pair of subtypes of schizophrenia seperately to determine the exact sites of significant differences. Cases of simple and catatonic schizophrenia have been excluded from this comparison due to their small number. The result, for each item, showed the following:

1) Loose association:

- Statistically significant differences were present between the hebephrenic subtype and the residual- latent-paranoid subtypes.
- Residual subtype was significantly different from the acute paranoid and schizo-affective subtypes.

2) Delusions:

- There were statistically significant differences between the paranoid subtype and the other 6 subtypes.
- Both the residual and latent subtypes were significantly different from the unspecified- schizo- affective and the acute episode subtypes.

3) Hallucinations:

- There were statistically significant differences between each of the following subtypes; paranoid, schizo-affective, residual, and latent on one hand, and the hebephrenic-unspecified and the acute episode subtype on the other hand.

4) Personality deterioration:

- Both the paranoid and the acute subtypes were significantly different from the unspecified and hebephrenic subtypes.
- The latent subtype was significantly different from the unspecified hebephrenic and schizo-affective subtypes.

5) Passivity experiences:

-Both the unspecified and hebephrenic subtypes were statistically different from the acute and schizo-affective subtypes.

By mapping the position of each disorder on the continuum of psychosis for the five dimensions previously mentioned, the "psychotic profile" for each disorder will be obtained. For every dimension the psychotic score was arranged along a continuum of severity (the psychotic continuum).

Comparison of the 5 scales between each pair of 2 subtypes of affective psychosis

(table 3)

K-W test of significance was carried out between each pair of 2 subtypes separately to determine the exact sites of significant differences between the subtypes.

1) Loose association scale:

Recurrent depression subtype was significantly different from both recurrent mania and milder cases. The mean rank

TABLE I

Comparison between the Characteristics of Cases with Schizophrenia, Affective Psychosis and Controls

	Schizophrenia n=117	Affective psychosis n=56	Control n=25
-Age in years	27.29 +/- 7.65	34.12 +/- 12.72	30.72 +/- 7.13
-Duration of illness in years.	3.95 +/- 4.54	4.68 +/-5.9	2.45 +/- 2.84
-Family history +ve/ -ve	36/81	15/41	2/23
- Hospital Private / state	56/61	28/28	3/22
-Subtypes:	20 paranoid. 20 hebephrenic. 18 unspecified. 16 residual. 15 schizoaffective. 11 acute episode. 10 latent. 5 catatonic. 2 simple.	24 recurrent depression 17 recurrent mania. 15 mixed attacks.	11 anxiety neurosis. 8 reactive depression. 6 obsessive compulsive neurosis.

TABLE II

Kruskal Wallis (K-W) Test between Schizophrenics and Controls on the Psychotic Scale

Item of psychotic scale Group I versus Group 2	Mean rank	Mean rank	Corrected X2
Associations	58.79	108.5	32.89
Delusions	58.76	108.62	33.08
Hallucinations	62.84	90.68	10.31
Personal deterioration	61.85	95	14.61
Passivity experiences	65.38	79.5	2.65

Statistically significant differences were present between schizophrenics and controls in the scale of association, delusions, hallucinations, and personality deterioration while passivity experiences did not show any statistically significant difference between the 2 groups.
P<0.0001.

TABLE III

K-W Test between Schizophrenics and Patients with Affective Psychosis on the Psychotic Scale

Item of psychotic scale Group I versus Group 2	Mean rank 1	Mean rank 2	Corrected X2
Associations	83.27	83.94	0,00
Delusions	67.41	115.08	36.5**
Hallucinations	72.13	105.83	18.25**
Personality deterioration	75.81	98.58	8.32 *
Passivity experiences	77.64	95	4.83 ***

Statistically significant differences were found between schizophrenia and the group of affective psychosis in the scales of delusions-hallucinations-personality deterioration and passivity experiences.

* P<0.001
** P<0.0001
*** P<0.05

TABLE IV

K-V Test between Schizophrenics and Patients with Affective Psychosis on the Psychotic Scale

Item of psychotic scale Group I versus Group 2	Mean rank 1	Mean rank 1	Corrected X2
Associations	34.08	56.5	15.69**
Delusions	38.93	45.62	1.39
Hallucinations	41.04	40.90	0.00
Personality deterioration	36.27	51.58	7.31*
Passivity experiences	41	41	0.00

Statistically significant differences were found between the group of affective psychosis and controls in the scale of association, personality deterioration and passivity experience.

* P<0.001

** P<0.0001

score in the depression subtype was smaller in the 2 comparisons meaning that it is a milder degree of psychosis compared with the other 2 subtypes.

2) The other 4 scales:

The differences between the 3 subtypes on each of the 4 scales did not reach significant levels.

DISCUSSION

Psychosis is not synonymous with schizophrenia. Psychotic symptomatology is not unique to a particular psychiatric condition (Waziri et al., 1983).It is rather a measurable dimension underlying different psychiatric disorders even in neurosis.

In the light of the confusion surrounding the positioning of the boundaries of psychosis, the present study used a rather broad concept depending on the 5 dimensions scale. The results revealed that loose association was not specific to any of the 3 groups of the study. The severest forms were present in schizophrenics, the mildest in the neurotic patients while the affective group occupied an intermediate position. According to the continuum, the neurotic group could be plotted towards one end while both schizophrenics and affective patients will be near the other end (though they are indistinguishable). This could be explained by the inclusion, in the affective group, of manic cases that obtained high degrees of loose association. In accordance to this result, Marango and Harrow suggested that thought disorders are as frequent and as severe in mania as they are in schizophrenia. However, Jampola et al. (1989) emphasized that thought disorders observed in mania were quantitatively different from those observed in schizophrenia. Meanwhile, loose associ-

ation was the only scale that significantly differentiated between the 3 subtypes of affective psychosis.

The recurrent depression had better scores compared to both recurrent mania and bipolar affective psychosis which constituted a rather homogeneous group.

Thought disorder was considered as a continuum ranging from mild slippage to bizarre verbalization. The importance of this disorder is controversial, even in schizophrenia, in the views of eminent psychiatrists. On one hand, schizophrenia is considered a disorder of association by Bleuler, and on the other hand, Schneider maintained that the disorder of association is not a significant factor in the diagnosis of schizophrenia (Cutting, 1985). More recently it is reported again that thought disorder is not unique to schizophrenia. It is measurable even in normal control persons (Rakhaway et al. 1987).

In all studies concerned with the assessment of psychosis, delusions and hallucinations are 2 common factors. Along the continuum of these signs, schizophrenia was found near one end, the control group near the other end and affective psychosis in between but nearer to the control group. The inclusion of the diagnosis of schizo-affective psychosis with the schizophrenic cases, following the ICD-9, may be responsible for this result.

However, psychotic affective illness bears a relationship to schizo-affective disorder. Both di-agnoses are related to a remitting course and to a mixture of affective psychotic symptoms (Winokur, 1984).

Schizo-affective disorder was found to be indistinguishable from unipolar and bipolar psychotic depression as regards clinical symptoms and social outcome on 24-months follow-up (Coryell et al. 1984) as well as regards demographic characteristics and psychotic symptoms (Bresleu and Meltzer, 1988).

The personality deterioration scale revealed that the 3 disorders were near the severe end of the continuum, schizophrenia was the worst, affective psychosis intermediate and neurotic disorder just below.

The schizophrenic deterioration replaced Kraeplin's idea of dementia praecox.It was generally regarded as organic in nature. In the 1960's the social reevaluation in psychiatry encouraged the view that the deterioration was psychosocial in origin; but there has been a recent trend to review that organic formulation (Cutting, 1983).

Finally, the passivity experiences scale failed to discriminate between the control group and both schizophrenics and affective psychotic patients. On the continuum, the 3 disorders would be arranged along a relatively narrow range, with a tendency to be near the mild end of the continuum.

This scale consists mainly of some of the first-rank Schneiderian criteria. Mathew et al. (1983) identified the first rank symptoms in paranoid states, acute psychotic reaction, temporal lobe epilepsy and even in hysterical psychosis. So, the first-rank symptoms were not exclusive to schizophrenic patients.

Comparison of the schizophrenic subtypes

On all the measures of the psychotic profile, the psychotic scores were poorer for hebephrenic and unspecified subtypes, better for residual and latent subtypes and intermediate for the other 3 subtypes: the acute episode, the schizoaffective and paranoid subtype.At the same time, no significant differences were shown between the hebephrenic and unspecified subtypes (except on the delusion scale) and between the residual and latent subtypes.

From the previous points, it is evident that the schizophrenic disorder is a heterogeneous group that can be subdivided into 3 main categories:

-The severe psychotic group that is formed of a rather homogeneous group and includes the hebephrenic and unspecified subtypes.

-The moderate psychotic group in-

cludes the acute schizophrenic episodes, the schizo-affective and paranoid subtypes.

-The mild psychotic group formed of the residual and latent subtypes, both constitute another homogeneous group.

Moreover, the profile of the latter group was nearer to that of the neurotic group than to the schizophrenic profiles .These results support the narrow concept of schizophrenia adopted by recent classification systems like the DSM-III Latent and residual subtypes represent different symptomatology and completely different stages of disintegration.The former subtype should be considered as a pre-psychotic phase that heralds the florid psychotic picture. Residual schizophrenia, represent the opposite pole of the same process, where it is the fate of any of the schizophrenic subtypes.

The schizo-affective psychosis was put in the intermediate group. Its position would lay between that of affective psychosis and schizophrenia but generally it could be considered as a variant of schizophrenia as its psychotic profile is more or less nearer to that of schizophrenia. The same view is held by other authors like Williams and McGlashan, (1987) depending on long-term outcome variables. However, others like Rosenthal et al., (1980) put it near to the affective disorders.

On the delusion scale, paranoid schizophrenia was significantly worse than the other 6 subtypes. This result parallels that of Rakhawy et al. (1987).

The personality deterioration was not uniform in all subtypes. Hebephrenic and unspecified subtypes showed a statistically significant higher degree of deterioration compared to the paranoid, acute and latent subtypes. Kendler et al. (1984) found that long term outcome of hebephrenic and undifferentiated schizophrenia was similar and both had significantly poorer outcome than paranoid schizophrenia.

As regard the passivity scale, the hebephrenic and unspecified subtypes were significantly worse than both schizoaffective and acute episode subtypes. However, Mellor (1970) did not find any significant difference between hebephrenic paranoid and catatonic subtypes.

To conclude, it is clear that schizophrenia is mostly a psychotic illness in spite of the quantitative differences of psychosis among different subtypes.

CONCLUSION

The scale of psychosis is a new instrument, the reliability and validity of which need to be improved. Nevertheless, it is at least a first attempt to assess psychosis in a clinical setting and in an objective manner. The present findings suggest its potential value:

1- Psychosis as a cluster of symptoms which could be quantitatively assessed in different psychiatric disorders.

2- Psychosis as a clinical entity, is not synonymous to schizophrenia but could be traced in affective disorders and even in neurotic disorders.

3- Every patient has a psychotic profile through which we can compare the scores obtained by the patient with the known profile, a tool which may help in the process of diagnosis.

4- Loose association scale was the most sensitive one that could determine the degree of psychosis. while personality deterioration scale was the least sensitive one.

5- According to our results, schizophrenia can be considered as a heterogeneous disorder or a group of such diseases with vary in degrees of psychotic severity (psychic disintegration). The mild forms are those of residual and latent subtypes. The most severely disorganized ones are those of the hebephrenic and unspecified subtypes.

6- Schizo-affective psychosis would better be included within the schizophrenic spectrum, as its psychotic profile is nearer to that of schizophrenia than that of affective psychosis.

7- Affective disorder according to

ICD-9 system of diagnosis is a rather homogeneous one, indicat-ing the validation of this system as regards the diagnosis of affective disorder.

8- Bipolar affective disorder was of a more severe degree of psychosis than unipolar affective disorder, especially if the patient is assessed during the manic phase. The clearly differentiating scale was the loose association one.

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ABSTRAIT

L'évaluation de la Psychose dans la Schizophrénie et la Psychose Affective en Utilisant Une Échelle Construite Localement

Cette étude a essayé de faire des investigations à propos de la notion que la psychose n'est pas synonyme à la schizophrénie.

Les symptômes psychiatriques ne sont pas uniques à une maladie psychiatrique particulière, mais ils forment une dimension mésurable qui intervient à travers les differentes maladies même celles qui sont névratiques.

On a étudié, un échantillon de 117 malades diagnostiqués comme souffrant de schizophrénie, 56 souffrant d'une psychose affective et un groupe de contrôle qui manifestent une maladie névratique.

La psychose a été évaluée dans ces malades à l'aide d'une échelle de semoner formée de 5 dimensions qui sont: l'association ample, delusion, hallucination détérioration de la personalité et les expériences de passivité et on a trouvé que la psychose est présente dans differentes types parmi les maladies étudiées.

La schizophrénie a été trouvée comme une maladie hétérogène et la maladie bipolaire affective a été trouvée ayant un degré de psychose plus grave que la maladie unipolaire.

الموجز

تقييم الذهان فى الفصام والاضطرابات الوجدانية

تحاول هذه الدراسة بحث مقولة أن الذهان غير مرادف للفصام؛ إن الأعراض النفسية ليست قاصرة على اضطراب نفسى معين، وإنما هى بعد قابل للقياس متواجد خلف الاضطرابات النفسية المختلفة حتى العصابية منها.

وقد تم بحث عينة من ١١٧ مريضاً تم تشخيصهم بالفصام، و ٥٦ مريضاً بالذهان الوجدانى، وعينة ضابطة من ٢٥ مريضاً بالاضطرابات العصابية.

وقد تم تقييم الذهان فى هؤلاء المرضى باستعمال مقياس متدرج صمم محلياً ويتكون من خمسة أبعاد هى: وهى الترابط، والضلال، والهلاوس، وتدهور الشخصية، وخبرات السلبية، وقد تمت دراسة النتائج على ضوء الصورة الطبنفسية، ووجد أن الذهان يوجد فى شكل أنماط مختلفة فى الاضطرابات التى تمت دراستها. ووجد أن الفصام اضطراب غير متجانس، وأن الاضطرابات الوجدانية ثنائية القطب أكثر شدة ذهانيا من أحادية القطب.