THE RELATIONSHIP BETWEEN INSIGHT AND ACUTE PSYCHOPA THOLOGY IN SCHIZOPHRENIA

By
Mohamed Farid, M.D.

ABSTRACT

The relationship between insight and acute psychopathology was explored in 52 acutely psychotic schizophrenic patients. A measure of insight, reflecting patients_ recognition of their illness and need for care, was applied together with the assessments of patients - compliance with medication. The degree of insight was not consistently related to the severity of acute psychopathology. Nor did changes in insight during hospitalization vary consistently with changes in acute psychopathology.

It was suggested that very little of the deficiency in insight seen in schizophrenic patients is explainable on the basis of acute psychopathological features. The mechanism that account for impairment of insight in schizophrenia is multidimensional and investigators should pay careful attention to the choice of measures as well as to phase of illness characteristics in future studies.

Review :

The consensus of psychiatric opinion about schizophrenia is that it is an illness affecting mental functioning, that at times schizophrenic patients require hospitalization for treatment of exacerbation of their illness, and that neuroleptic medications diminish psychopathology in most schizophrenic patients. However many schizophrenic patients apparently disagree. They deny that they are ill, are unwilling to enter or remain in the hospital during exacerbation of their illness and discontinue their prescribed psychoactive medications after discharge with the result being clinical deterioration and the need for rehospitalization.

Schizophrenic patients failure to acknowledge their illness and need for treatment is often termed "lack of insight".

Recent years have seen heightened interest in the topic of insight into illness among patients with major psychotic disorders, particularly schizophrenia (Greenfield et al, 1989; Davis, 1990; Amador et al, 1991; Markova and Berrios, 1992; Birchwood et al, 1994 and Swanson et al, 1995). In general, these authors have confirmed that substantial deficit in insight are common among patients with schizophrenia. They also have suggested that insight be viewed as multidimensional contrast, including at least, awareness of illness, attribution of symptoms, and acknowledgment of need for treatment.

Many definitions of insight exist in the literature, including "the presence of verbalized awareness on the part of the patient that impairment of intellectual functioning existed" (Eskey, 1958), the acknowledgment of some awareness of emotional illness (Carpenter et al, 1973), a "yes" response to questions about needing to be in a hospital or see a doctor (Lin et al, 1979), "the patient ability, during the early phase of decompensation, to recognize that he or she is beginning to suffer a relapse" (Heinrichs et al, 1985). The guiding concept used in this study is that patients with insight judge some of their perceptual experiences, cognitive processes, emotions, or behaviors to be pathological in a manner that is congruent with the judgement of involved mental health professionals, and that these patients believe that they need mental health treatment, at times including hospitalization and pharmacotherapy.

Previous studies of insight have demonstrated that judgement of self as ill and in need of treatment tend to be rare among psychiatric inpatients relative to medical inpatients (Young et al, 1993). Even 50% of the voluntarily admitted psychiatric patients failed to acknowledge their need to be in a psychiatric hospital, the vast majority of them denying it outright (Guesta and Peralta, 1994). In the World Health Organization Pilot Study of Schizophrenia (Carpenter et al, 1973) insight was so uncommon among schizophrenic patients that lack of insight proved to be a discriminating variable in favor of a diagnosis of schizophrenia.

Insight has been associated with greater expressed willingness to take medications (McEvoy et al, 1981), better adherence to prescribed medications (Lin et al, 1979), and less likelihood of hospitalization if relapse is beginning (Heinrich et al, 1985). These findings suggest that those patients who at a given time state that they are ill are more likely at that time to cooperate with their medications. Presence or absence of insight has been found to be moderately related to severity of psychopathology in one cross-sectional study (David et al, 1995). Better insight at admission does not result in briefer length of stay, and patients with better outcomes have not been found to have more insight than patients with poor outcome (Kemp and David, 1996). Although some authors of older studies in the literature report that as schizophrenic patients improve with treatment, insight increases (Pan and Tantum, 1989), others have found insight to decrease (Marder et al, 1984). Thus the relationship between acute psychopathology and insight remain uncertain.

Early psychodynamic theorists (Semrad, 1966) deemed the acquisition of insight to be part of the curative process itself, but no systematic studies that test this proposition exist. Among the few studies of insight in the era of pharmacological treatment for schizophrenia, most have failed to find a positive relationship between insight and neuroleptic induced declines in psychopathology during short or longer term inpatient stays (Kemp et al, 1996).

This study differs from the existing literature in combining two methodological approaches to the study of insight: a) the use of a standard psychopathology rating scales, instead of the impressionistic judgements usually employed in previous studies; and b) the application of these measures over time, enabling an assessment of the dynamic qualities of insight.

MATERIAL AND METHODS

The study population consisted of 52 patients who were admitted to the Inpatient Unit of Psychiatric Department of Mansoura University Hospital from January 1996 to April 1997. They met DSM-IV criteria for schizophrenia and who were judged to be in an acute psychotic episodes. The average length of stay in the hospital was 34+16 days (range 14-54 days).

ASSESSMENT PROCEDURES

The insight and Treatment Attitudes Questionnaire "ITAQ" (Dickerson et al, 1997) was administered to each subject by the same examiner at the time of initial assessment, at day 14, and at discharge.

The ITAQ responses were scored by consensus as 2= good insight, 1= partial insight, 0= no insight in weekly meetings involving two judges: a psychiatrist who did not have direct contact with the patient and the research associate and the net score is the average of the two judges. The total ITAQ score range from 0 to 22 (maximum possible score, 22). In this research a score of 10 is taken as a cut-off point above which the patient is considered insightful and below which is non-insightful.

Psychopathology Ratings:

A ward psychiatrist on the Inpatient Unit completed the Brief Psychiatric Rating Scale "BPRS" (Overall and Gorham, 1962) and Clinical Global Impressions "CGI" (Endicot and Spitzer, 1979). Global Severity item based on daily observations of the patient in the unit and a brief psychiatric interview.

Medication Compliance:

The medication-taking behavior was observed by a nurse rater who most frequently administered the patients_ medication. On the basis of this information, each patient behavior was rated every 2 weeks as: a) Active compliance -patient comes readily for medication at the scheduled times (score=1); b) Passive compliance patient must be sought out for medication but does not resist when told to take medication (score=2); c) Resistance -patient "cheeks medication but takes medication when they are repeatedly proffered (score=3); d) Overt refusal -medications can only be given against patients wishes or are not given (score=4).

RESULTS

Table (1) :

As shown in the table, of the 52 patients who comprised the analytic cohort, 28 (53.8%) were men and 24 (46.2%) were women. The mean age of the group was 34±12 years. The group had a mean of 6±5 prior hospitalizations and had their first hospitalization 9±10 years earlier. Twenty-eight patients (53.8%) had been admitted on a voluntary basis and 24 (46.2%) were involuntary committed. The average length of stay was

34±16 days.

Table (2) :

As shown in the table, there were no significant differences between insightful and non-insightful patients with respect to age, sex, years of education, duration of illness, number of previous hospitalizations, drug status at the time of admission and severity of illness at time of admission as reflected by total score of BPRS.

Table (3) :

In the table, the initial ITAQ score were low. Although significant improvement occurred by the time of final assessment, the scores remained very varied and still low.

Table (4) :

Medication compliance behavior in the hospital was generally very good, with little variation within the group at initial assessment and, although some improvement occurred by final assessment, this difference was not statistically significant.

Table (5) :

Medication compliance and ITAQ scores were moderately inversely correlated at initial and at day 14 assessments, i.e. patients with higher ITAQ ratings were more cooperative with prescribed medications. Such relationship was not apparent at the final assessment.

Table (6) :

This group of acutely psychotic patients was rated as moderately severely ill at initial assessment and experienced significance improvement over the course of inpatient treatment.

Table (7) :

Although no significant relationship was apparent between ITAQ and BPRS or CGI scores at initial assessment, ITAQ scores were moderately inversely correlated with BPRS total scores and CGI Global Severity scores at day 14. Thus more disturbed patients tended to be less insightful. By the time of final assessment, this relationship was significant for global Severity but not for the BPRS total scores.

Table (8) :

To determine whether insight changed systemically when psychopathology decreased, a correlation between the change scores (Last minus First assessment) were examined, but revealed no significant rela-

tionships between the change in ITAQ and either the change in BPRS or CGI Global Severity scores.

Table (9) :

No significant correlation were found between ITAQ scores and age at time of current episode, years of education, duration of illness or number of previous hospitalization. Non of these variables could predict insight.

Table 1: Demographic characteristics of patient population.

Demographic Features	Data
Total number	52 (100%)
Male	28 (53.8%)
Female	24 (46.2%)
Mean age in years	34±12
Mean number of prior hospitalization	6±5
Mean date since first hospitalization in years	9±10
Way of admission:	
- Voluntary basis	28 (53.8%)
- Involuntary committed	24 (46.2%)
Average length of stay in days	34±16

Table 2: Insightful versus noninsightful patients.

Variables	Insightful (23) 44.2%	Noninsightful (29) 55.8%	t	P
- Mean age in years.	33.5±11	34.5±13	0.61	>0.05
- Mean years of education.	9.5±4	8.5±3	1.00	>0.05
- Sex: Male/Female	13/10	15/14	--	--
- Mean duration of illness.	8±7	10±9	0.91	>0.05
- Mean number of previous hospitalization.	5±4	7±5	1.74	>0.05
- Drug free at time of current relapse.	11 of 23	13 of 29	--	--
- Mean total BPRS at time of admission.	42.4±7.8	43.2±8.4	0.36	>0.05
- Average length of stay.	33±14	35±17	0.11	>0.05

* >0.05= non-significant.

Table 3: ITAQ scores on admission and by the time of final assessment.

ITAQ scores	Mean	t	P
- Admission	8.3±5.9	3.26	<0.01
- Final assessment	10.6±6.5		

* <0.01= Moderate significance.

Table 4: Medication compliance behavior during hospital stay.

Medication Compliance	Mean	t	P
- Initial assessment	1.35±0.62	1.63	>0.05
- Final assessment	1.23±0.47		

* >0.05= non-significant.

Table 5: Correlation between medication compliance and ITAQ scores.

Medication Compliance	r	P
- Initial assessment of ITAQ.	-0.35	<0.01
- At day 14 assessment of ITAQ.	-0.36	<0.01
- At final assessment of ITAQ	-0.16	>0.05

* >0.05= non-significant, <0.01= Moderate significance.

Table 6: Psychopathology in the studied population.

Scales	Initial assessment	Final assessment	t	P
- BPRS	42.8±8.1	33.3±9.6	8.03	<0.001
- CGI Global Severity	4.7±0.7	3.4±0.9	10.86	<0.001

* <0.01= Moderate significance.

Table 7: Correlation between insight and psychopathology.

ITAQ scores	BPRS		CGI Global Severity	
	r	P	r	P
- Initial assessment.	-0.12	>0.05	-0.14	>0.05
- 14 assessment.	-0.35	<0.01	-0.41	<0.01
- Final assessment.	-0.21	>0.05	-0.30	<0.05

* >0.05= non-significant, <0.05= mild significance, <0.01= Moderate significance.

Table 8: Correlation between insight and psychopathology (Last minus First assessment).

Change in ITAQ scores	R	P
- Change in BPRS scores.	-0.16	>0.05
- Change CGI scores.	0.12	>0.05

* >0.05= non-significant.

Table 9: Correlation between ITAQ scores and some other variables.

ITAQ scores (initial)	r	P
- Age at time of current episode.	0.26	>0.05
- Years of education.	0.12	>0.05
- Duration of illness.	0.28	>0.05
- Number of previous hospitalization.	-0.15	>0.05

* >0.05= non-significant.

DISCUSSION

The study confirms some of the findings of previous studies of insight that used less structured assessment approaches. The results indicate that over half of the studied schizophrenic patients (55.8%) had moderate to severe unawareness of having a mental disorder and were rated as non-insightful. This group of schizophrenic patients showed wide variation in degree of insight with ITAQ scores ranging from 0 to the maximum possible score of 22. Average scores, however, were poor, with the mean insight score, even at the final assessment before discharge, an impressive 10.6+6.5. This finding is in agreement with the results from the International Pilot Study of Schizophrenia report (1973), the study of Wilson et al, 1986 and the study of Amador et al, 1994, which indicate that a majority of patients with schizophrenia appear to be unaware of having a mental disorder. However, a major limitation of these studies was their reliance on a measure of insight that was dichotomous and conceptually narrow. Patients were judged as having poor insight if they "denying being ill" and as having good insight if they did not. In the present study, a measure of insight was used that was more complex, allowing the assessment of multiple aspects of insight.

Neither age nor sex predicted insight. Number of prior hospitalizations and duration of illness might be hypothesized to reflect opportunities to learn from experience or to accrue knowledge about the illness. However, neither predicted insight. The similarity in number of years of education between the insightful and the non-insightful groups makes it unlikely that the insightful patients are simply those who are better educated and hence more articulate in describing their inner experience and more likely to collaborate with clinician.

The data on compliance with medication revealed the expected correlation between degree of insight and cooperation with medication regimens (Amador et al, 1991 and Swanson et al, 1995). However there was a contrast between patients_ generally low ITAQ scores and their high rates of medication compliance, at least in the inpatient environment. In addition, we were impressed by the many subjects interviewed who consistency responded "no" when asked if they were ill or needed treatment, but expressed a clear willingness to take medication in

the hospital. It may be that inpatient compliance more immediately reflects the socialization of patients to expected behavior than any clear recognition of a need for treatment. In outpatient settings, however, were patients are less subject to environmental pressures of compliance, taking medications may be more related to insight into a need for treatment.

The relationship between insight and acute psychopathology proved to be more complex than expected. ITAQ scores had no significant relationship with severity of psychopathology at the time of initial assessment. However, there was the expected inverse relationship at day 14 of hospitalization. There was no consistent relationship between changes in psychopathology and changes in insight over time. That is, the nearly universal improvement in psychopathology that our patients demonstrated was not consistently accompanied by improvement in insight, as might be expected if psychotic symptoms per se interfered with patients- ability to recognize their illness and need for care. It may be also that some patients showed a decrease in insight as psychopathology improved, as might be seen if patients-reconstitution included a "sealing over" or "flight into health" in which the existence of a severe illness was denied.

Although significant improve-ment in ITAQ score were seen in the group over the course of hospitalization, the absolute magnitude of these changes was quit small. This means that a considerable proportion of patients showed no substantial change in their levels of insight over the course of hospitalization. In this population, it appears that the degree of insight manifested by patients generally operates independently of changes in acute psychopathology. The mechanism that accounts for impairment in insight may, unlike the mechanisms that produce positive schizophrenic symptoms, be relatively resistant to treatment with neuroleptic medication.

Many features of the schizophrenic illness, however, could be expected to impair insight. Impaired reality testing is common with respect to the patients' own behavior as well as his environment (Dickerson et al, 1997). Paranoid delusions provide compelling alternative explanations of the patient altered experiences (Kasapis et al, 1996). Inattentiveness based on

though disorder and cognitive disorganization could reduce the patients' capacity for careful systemic self-assessment (Kim et al, 1997). Limitation in the drive and capacity for rapport restrict access to interpersonal processes that facilitate a shared perspective and understanding of an individuals' experience (Smith et al, 2000). So, what determines the presence or absence of insight is still in need for further investigations. A possible explanation investigated in this research is that non-insightful patients are those with more severe schizophrenic illness. The available data, however, do not support this interpretation. The mean BPRS and CGI are very similar for the insightful and the non-insightful patients both with respect to absolute level and change from baseline.

Our results clearly require replication with other similar patient groups before they can be accepted as a definite characterization of insight in acutely psychotic schizophrenics. However, hypothesis closely linking lack of insight in schizophrenia with severity of psychopathology seems to be too simplistic. The failure of insight to improve consistently and substantially as psychopathology diminishes is a riddle, and a fundamental understanding of schizophrenia must ultimately account for this. A better understanding of insight is probably crucial to programs designed to decrease defaulting and rehospitalization. Psycho-educational programs should address the remediation of self-awareness deficits in addition to educating the patients and their families about the nature of symptoms more generally. We hope that these findings will be a stimulus to further work in this area.

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العلاقة بين البصيرة والسيكوباثولوچيا الحادة فى مرض الفصام

ساعدت الدراسة الحالية على إكتشاف علاقة بين البصيرة والسيكوباثولوچيا الحادة فى ٥٢ مريض باضطراب الفصام الذهانى الحاد. وقد قيست البصيرة بدرجة تعرف المرضى على وضعهم المرضى ودرجة إحتياجهم للعلا بالإضافة إلى تقييم درجة تقبلهم واستمرارهم على العلا بالعقاقير.

وقد دلت النتائج على أن درة البصيرة ليس لها علاقة ثابتة بشدة السيكوباثولوچيا الحادة (أعراض المرض الحادة). كما أن درجة البصيرة لم تتغير أثناء الإقامة بالمستشفى بتغير شدة السيكوباثولوچيا الحادة. ويستخلص من هذا أن المظاهر السيكوباثولوچية الحادة لاتؤثر بدرجة ذات أهمية فى تفسير خلل البصيرة فى مرضى الفصام.

وحيث أن الآلية التى تؤدى إلى حدوث إضطراب البصيرة فى الفصام متعددة الجوانب والمستويات. لذا فان على الباحثين أن يهتموا فى دراساتهم وأبحاثهم المستقبلية باختيار المقاييس والوسائل وسمات مراحل المرض لدراسة مثل هذه العلاقات .