

## Relationship between insight and psychotic symptoms among psychiatric inpatients

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### Abstract

Insight is a problem that afflicts a large portion of people with psychiatric disorders. Therefore, this study aimed to assess the levels of insight and severity of psychotic symptoms among psychiatric patients and determine the relationship between insight and severity of psychotic symptoms among psychiatric patients. A descriptive correlational design was used in the study. This study was conducted at the inpatient unit at Bani- Ahmed psychiatric hospital in Minia governorate. **Three tools** were utilized to measure the variables of the study: Personal and Medical data Questionnaires, Brief Psychiatric Rating Scale and Insight Scale. **Results:** revealed that, 80.8% of the studied patients had moderate severe psychotic symptoms. The severity of symptoms increased in females, those who resided rural area, widowed and divorced patients, also, increased among schizophrenia, depression and mania respectively. Moreover, 50.8% of the studied patients had lack of insight and there was negative weak significant correlation among symptoms severity and insight **Conclusion:** The majority of the studied patients had moderate severe psychotic symptoms and more than half of the studied patients had lack of insight. Poor insight was associated with greater psychiatric symptoms severity **Recommendations:** psycho-educational programs are recommended to improve patient's insight.

**Keywords:** *Insight, Psychiatric inpatients & severity of psychotic symptoms.*

### Introduction

Insight is an important concept in clinical psychiatry as it is a complex multidimensional construct which is shaped by the individual's psychology (i.e. motivation and denial) and the constraints of biology (as cognitive impairment and anosognosia) and is influenced by social construction of illness and culturally specific explanatory models (Amador & David, 2004). It has been alternatively held that acknowledgment of one's mental illness is a detriment and a key to successful adaptation. From one perspective, acceptance of illness has been advanced as a key to making informed decisions about one's future, to free oneself from blame for difficulties linked with illness and to forming bonds with others who are aware of one's difficulties. From another view however, "awareness of illness" has been suggested to represent the acceptance of a system of social power in which one's individuality and dignity is at risk of being diminished. Indeed both awareness and lack of awareness have significant risks associated with them, (Saostowo, 2011).

The search for positive outcomes from insight has revealed negative outcomes, particularly in the areas of quality of life and self-esteem. The concept of insight is problematic because it merges several aspects of the mental illness experience that may not belong together. An examination of the theoretical

and empirical literatures in the area reveals a mélange of ideas about awareness of illness, acceptance of illness, willingness to take medication or other treatment, and endorsement of other expectations that are applied to people with mental disorders, (Kravetz et al., 2000).

The etiopathogenetic mechanisms of lack of insight are to date unknown, although several hypotheses have been suggested. At first, lack of insight was understood as a denial of illness (for example, as an abnormal coping mechanism or abnormal psychological defense). Finally an alternative clinical hypothesis considers lack of insight arises directly from the illness process and can be considered as "primary" or "basic" symptoms of disorder (Pini et al., 2001).

It was concluded that, although insight is a separate phenomenon, it is modestly influenced by symptom dimensions of psychosis. Specifically, insight is worse in the presence of positive, negative symptoms and psychotic disorganizations. Conversely, insight is better in the context of depression (David, 2004).

### Significance of the Study

According to the previous researches, lack of insight have a paramount importance in psychotic patients' condition, it contributes to poorer global functioning, severity of psychopathology, delayed treatment-seeking, treatment-refractory symptoms, prolonged course, avoidable hospitalizations, recurrence and

poorer outcome. Therefore, this study will assess the level of insight among psychiatric patients for its close association with patients' willingness to seek or accept care for their mental illness. Data generated from this study could be helpful in identifying the way psychiatric patients perceive or understand their illness.

## Patients & Method

### Aim of the study

This study aimed to assess the levels of insight and severity of psychotic symptoms among psychiatric patients and determine the relationship between insight and severity of psychotic symptoms among psychiatric patients.

**Research design:** A descriptive correlational design was used in the study; such design fits the nature of the problem under investigation.

**Setting of the study:** This study was conducted at the inpatient unit at Bani- Ahmed psychiatric hospital in Minia governorate. This hospital is affiliated to Ministry of Health. It consists of two floors; the first floor for the outpatient clinics, pharmacy and administration. The second floor includes psychiatric inpatients and nursing offices. The hospital capacity is 50 beds for both genders.

### Sample

included all patients admitted to the psychiatric inpatient units during ten months started from the first of March to the end of December 2013, their number accounted to 250 psychiatric patients.

### Tools of data collection:

- **Socio-demographic and clinical data questionnaire:**
- This questionnaire was developed by the researcher to elicit data about patient's age, gender, educational level, marital status, occupation and diagnosis.
- **Brief Psychiatric Rating Scale (BPRS)**
- Brief Psychiatric rating scale was developed by **Overall & Gorham, 1963** and modified by **Ventura et al., 1993**. This scale covers 24 symptoms to assess the severity of psychiatric symptoms. It is rated on a 7-point likert scale of severity ranging from "not present" (1) to "extremely severe" (7). Higher score indicates greater severity. Reading of this score range from 168 as higher score to 24 as lower score which categorized according to the following scores: 24 for not present symptom, 25-49 is considered very mild, 50-74 is mild, 75-99 for moderate, 100-124 is considered moderately severe, 125-149 is severe and 150 or more for extremely severe. Items 1-14 are rated on the basis of individuals' self-report. Items 15-24 are rated on the basis of observed

behavior and speech during the interview and by asking the hospital staff. This scale possesses adequate internal consistency (cronbach alpha 0.79) for Arabic form. Validity of this scale was tested by five experts in the field of psychiatry and psychiatric nursing. This scale is translated into Arabic language and content validity was tested by 3 bilingual experts in the field of psychiatry and psychology by (**Shehata, 2008**).

### - **Insight scale (IS)**

- Developed by **Birchwood et al. 1994**. It consists of 8 items divided into 3 subscales to assess awareness of illness (2 items), relabel of experiences (2 items) and need for treatment (4 items). The scale is scored on a 3- point likert scale (0= disagree, 1= unsure & 2= agree) with higher scores indicating higher level of insight. The degree of insight was categorized according to the following: zero is considered lack of insight, 1-8 moderate level of insight and 9-16 for high level of insight. The scale possesses adequate internal consistency (cronbach alpha 0.75) for Arabic form. The tool was translated into Arabic by the researcher and back translation was done. Validity of this scale was tested by five experts in the field of psychiatry and psychiatric nursing and their modifications were collected and revised and certain modifications were done accordingly. Note: Items numbers (2, 3, 6 & 8) are reversed in scoring.

### Pilot Study

A pilot study was done to evaluate tools clarity and applicability as well as the time needed to fulfill each sheet. It was carried out on a sample of 25 patients who were excluded from the actual study sample.

### Data collection

Data were collected from all patients admitted to psychiatric inpatient unit during ten months started from the first of March to the end of December 2013. Data collection was carried out 2 days per week from 10 am to 2pm. patients were interviewed using the study tools after taking oral consent. The interview took about 30 minutes with every patient.

### Ethical considerations

The following ethical considerations were considered throughout data collection:

- Oral consent was obtained from the patients and the participation in the research was voluntary.
- Data confidentiality was maintained.
- The participant's dignity and privacy were maintained and respected throughout the research process.
- Risk-benefits assessment: There was no risk during the application of the research.

### Statistical Analysis

The content of each scale was analyzed; categorized and coded statistical analysis was done using the statistical package for social science (SPSS) version 17. Descriptive statistics were calculated as

frequencies, percentage, mean and standard deviation and inferential statistics as F-test, T-test as well as parson correlation. Probability (P-value) is considered significant at or less than 0.05 and considered highly significant at or less than 0.001.

### Results

**Table (1): Distribution of demographic and clinical characteristics of the studied patients (N=250).**

Demographic characteristics	Range	Mean (SD)
age	17- 57	34. 39 ± (9.73)
<b>Demographic characteristics</b>	N	%
<b>Sex</b>		
Male	184	73.6
Female	66	26.4
<b>Residence</b>		
Urban	125	50
Rural	125	50
<b>Education</b>		
Illiterate	57	22.8
Read& write	11	4.4
Primary	17	6.8
Preparatory	10	4.0
Secondary	118	47.2
University	37	14.8
<b>Marital status</b>		
Single	115	46
Married	91	36.4
Divorced	35	14
Widow	9	3.6
<b>Occupation</b>		
Employee	56	22.4
Not working	89	35.6
Farmer	52	20.8
House wife	53	21.2
<b>Diagnosis</b>		
Schizophrenia	136	54.4
Depression	49	19.6
Mania	44	17.6
Schizoaffective	6	2.4
Others (delusional dis., personality dis.)	15	6.0

**Table (2): scores of severity of symptoms (PSRS) among the studied patients (N= 250).**

Severity of symptoms	N	%
Not present	-	-
Very mild	26	10.4
Mild	22	8.8
Moderate	202	80.8
Moderately severe	-	-
severe	-	-
Extremely severe	-	-
Total	250	100%

**Table (3): Scores of insight scale among the studied patients (N= 250).**

Insight scale	N	%
lack of insight	127	50.8
Moderate level of insight	30	12
High level of insight	93	37.2
Total	250	100%

**Table (4): Comparison between demographic characteristics regarding scores of severity of symptoms (BPRS) among studied patients (N=250).**

Items	N	Severity of symptoms						X2	P
		Very mild		Mild		Moderate			
		N	%	N	%	N	%		
<b>Gender</b>									
Male	184	16	8.7	24	13	144	78.3	5.248	0.073
Female	66	2	3	6	9.1	58	87.9		
<b>Residence</b>									
Urban	125	12	9.6	18	14.4	95	76	9.776	0.008
Rural	125	14	11.2	4	3.2	107	85.6		
<b>Level of Education</b>									
Illiterate	57	7	12.3	11	19.3	39	68.4	22.763	0.062
Read& write	11	3	27.3	2	18.2	5	54.5		
Primary	17	5	29.4	2	11.2	10	58.8		
Preparatory	10	0	0	10	100	0	0		
Secondary	118	14	11.9	5	4.2	99	83.9		
University	37	2	5.4	2	5.4	33	89.2		
<b>Marital status</b>									
Single	115	23	20	7	6.1	85	73.9	10.079	0.021
Married	91	13	14.3	8	8.8	70	76.9		
Divorced	35	0	0	6	17.1	29	82.9		
Widow	9	0	0	1	11.1	8	88.9		
<b>Occupation</b>									
Employee	56	7	12.5	3	5.4	46	82.1	9.632	0.141
Not working	89	13	14.6	7	7.9	69	77.5		
Farmer	52	6	11.5	6	11.5	40	76.9		
House wife	53	0	0	6	11.3	47	88.7		

**Table (5): Comparison between diagnosis regarding scores of severity of symptoms (BPRS) among studied patients (N=250).**

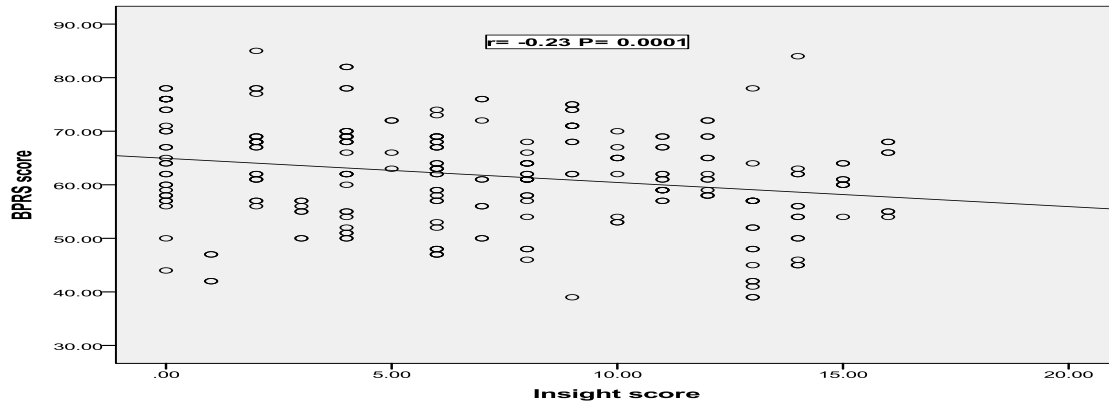
Items	N	Severity of symptoms						X2	P
		Very mild		Mild		Moderate			
		N	%	N	%	N	%		
<b>Diagnosis</b>									
Schizophrenia	136	11	8.1	13	9.6	112	82.3	8.754	0.000
Depression	49	4	8.1	7	14.3	38	77.6		
Mania	44	5	11.3	9	20.5	30	68.2		
Schizo affective	6	6	100	0	0.0	0	0.0		
others	15	10	66.7	2	13.3	3	20.0		

**Table (6): Comparison between Demographic Characteristics regarding Insight Scale (IS) among studied patients (N=250)**

Items	N	Insight scale						X2	P
		Lack of insight		Moderate level of insight		High level of insight			
		N	%	N	%	N	%		
<b>Gender</b>									
Male	184	96	52.2	69	37.5	19	10.3	1.903	0.338
Female	66	31	47	24	36.4	11	16.7		
<b>Residence</b>									
Urban	125	67	53.6	47	37.6	11	8.8	2.530	0.282
Rural	125	60	48	46	36.8	19	15.2		
<b>Level of Education</b>									
Illiterate	57	36	63.2	13	22.8	8	14	29.926	0.001
Read& write	11	4	36.4	4	36.4	3	27.3		
Primary	17	10	58.8	5	29.4	2	11.8		
Preparatory	10	2	20	8	80	0	0		
Secondary	118	54	45.8	55	46.6	9	7.6		
University	37	7	18.9	8	21.6	22	59.5		
<b>Marital status</b>									
Single	115	68	59.1	37	32.2	10	8.7	14.642	0.023
Married	91	33	36.3	43	47.3	15	16.5		
Divorced	35	19	54.3	11	31.4	5	14.3		
Widow	9	7	77.8	2	22.2	0	0		
<b>Occupation</b>									
Employee	56	32	57.1	14	25	10	17.9	11.695	0.069
Not working	89	48	53.9	34	38.2	7	7.9		
Farmer	52	25	48.1	24	46.2	3	5.8		
House wife	53	22	41.5	21	39.5	10	19		

**Table (7): Comparison between diagnosis regarding Insight Scale (IS) among studied patients (N=250).**

Items	N	Insight scale						X2	P
		Lack of insight		Moderate level of insight		High level of insight			
		N	%	N	%	N	%		
<b>Diagnosis</b>									
Schizophrenia	136	114	83.8	13	9.7	9	6.5	13.870	0.000
Depression	49	4	8.2	10	20.4	35	71.4		
Mania	44	27	61.4	10	22.7	7	15.9		
Schizo affective	6	1	16.7	1	16.7	4	66.6		
others	15	9	60	4	26.7	2	13.3		



**Figure (1): correlation between brief psychiatric rating score and insight score.**

**Table (1):** Shows the distribution of the demographic characteristics of the studied patients. The studied patients consisted of 250 psychiatric patients. The mean age of the studied patients was 34.39+ (9.73). Male patients represent (73.6%). Half of (50 %) the patients resided in rural area. 47.2 % of the studied patients were graduated from secondary school. 46% of the patients were single and 36 % of them were married. More than one third of the studied patients (35.6 %) were not working. More than one half of the studied patients (54.4%) were schizophrenics.

**Table (2):** Shows scores of severity of symptoms among the studied patients. The majority of the studied patients (80.8%) had moderate severe psychotic symptoms.

**Table (3):** Reveals scores of insight among the studied patients. More than half of the studied patients (50.8%) had lack of insight.

**Table (4):** Shows comparison between demographic characteristics regarding severity of psychotic symptoms among studied patients. There was a statistical significant difference between residence and severity of symptoms (P. value = 0.008). It was clear that, the majority of the studied patients (85.6%) who resided in rural areas have moderate severity of psychotic symptoms. Regarding marital status, it was found that, there was statistical significant difference between marital status and severity of symptoms (P.value = 0.021). The severity of symptoms increased among widowed and divorced patients (88.9% & 82.9%) respectively.

**Table (5):** Shows comparison between diagnosis regarding severity of psychotic symptoms among studied patients (P. value = 0.000). it was noted that, severity of psychotic symptoms increased among schizophrenics, depressed and manic patients (82.3%, 77.6% & 68.2%) respectively.

**Table (6):** Illustrates Comparison between demographic characteristics regarding scores of insight scale among studied patients. It was founded

that there was a statistical significant difference between level of educations and insight (P. value = 0.001). More than half of illiterate and primary educated patients (63.2% & 58.8%) have a lack of insight respectively while more than half (59.5%) of university educated patients have high level of insight.

**Table (7):** Demonstrates Comparison between diagnosis regarding scores of insight scale among studied patients. There were a highly statistical significant differences among diagnosis and insight scale (P. value=0.000). It was noticed that, schizophrenics and manic patients (83.8 % & 61.4%) have a lack of insight respectively, while insight increased among depressed and schizoaffective patients (71.4 % & 66.6%) respectively.

**Figure (1):** Demonstrates that, there is negative and weak significant correlation between insight score and brief psychiatric rating score ( $r = -0.23$  &  $P = 0.000$ ).

## Discussion

The result of this study revealed that, the majority of the studied patients had moderate severe psychotic symptoms (table 2). This result could be explained by several possible factors. First factor was related to the nature of psychiatric disorders, where more than half of the studied sample has schizophrenia and about one quarter of them have depression and mania.

Hospitalization could be another factor for depressed feeling and emotional withdrawal in which the patients away from their families, friends, and familiar persons. Moreover, psychiatric patients who possess a considerable amount of their insight tend to realize their restrictions and their need for treatment. They become depressed especially with the regain of their emotions and internalization of the stigma of their illness. Finally, people tend to respond negatively to psychiatric patient. Thus, it is



speculated depressive symptoms, isolation and suicidal ideation that have a negative impact on well-being and mental health.

These assumptions are partially consistent with **Eagles et al., (2003)** study; as they reported that, anticipated and actual discrimination and internalized stigma decreased life satisfaction and self-esteem, as well as increased alcohol use, depression and suicidality. In addition, these findings consistent with **Mishra et al., (2009)** who reported that, subjects participated in the study have mild to moderate level of severity on brief psychiatric rating scale.

In this study, there was statistical significant difference between residence and severity of symptoms. The severity of symptoms were increased in patients reside rural than urban areas. This might be attributed to; the rural population reflected a higher proportion of persons whose characteristics, such as poor health and facilities place them at high risk for mental problems (table 4).

Regarding marital status and severity of symptoms, it was found that, widow and divorced patients respectively had highest severity of symptoms than those who were married or single. This results could be explained by that, patient who lost their (husbands or wives), they lose someone who made them feel be loved and appreciated worth of value and lack of social support. These lose considered as a main factor of their psychiatric illness (table 4). These findings are contradicted with the results of, **Charmaine et al., (2002)** who reported that, there were no significant differences found between sociodemographic variables with the severity of symptoms and subjective quality of life.

Concerning the relationship between diagnosis and severity of symptoms, the severity of symptoms was increased among schizophrenic, depressed and manic patients respectively while it was decreased in schizoaffective and patients with other diagnoses ( as delusional disorders and personality disorders) respectively (table 5). These findings are partially supported with the results of, **Charmaine et al., (2002)** who stated that, patients with diagnosis of schizophrenia were assessed as having a greater severity of symptoms and a lower subjective quality of life than those with diagnosis of bipolar disorder. Similarly, **Engh et al., (2007)** found that, the subjects in the schizophrenia group had significantly higher scores on symptom measures and also larger variability than in the bipolar group.

Concerning insight, the present study revealed that, more than half of the studied patients had lack of insight (table 3). These findings can be explained by; the recognition of illness seems to be strongly influenced by disease and sociocultural factors. These findings are consistent with the results of (**Brown et**

**al., 2010**) who found that, less insight in both the need for treatment and insight into having a mental disorder were associated with hospitalized patients. However, these results are contradicted with the findings of other studies which found that, better insight among inpatients and that's due to the fact that patients under psychological treatment had a better insight into the illness could be due to the psycho education provided by psychotherapy. Another explanation could be the reduction in the denial of the illness that would play a role in insight impairment. There may also be a bias, because patients with better insight would be more amenable to psychotherapy (**Gigante & Castel, 2008**).

Regarding the relation between insight and demographic characteristics of the studied sample; the current study revealed that, there were no statistical differences between gender, residence, marital status and occupation (table 6). these findings are consistent with the results of (**Gigante & Castel, 2008**) who found that, insight among the patients was not related to the demographic variables of age, and gender and number of years of education,. Also, these results are supported by, (**Arduini et al., 2006**) who didn't found any significant difference on any demographic variables and insight.

While the current study revealed that, there is a highly statistical difference between level of education and insight (table 6). More than half of illiterate and primary educated patients have a lack of insight respectively while more than half of university educated patients have high level of insight. This finding was supported by, (**Macpherson et al, 2007**) who found better insight among patients with higher educational levels. Similarly, **Dias et al., (2008)**, reported that, the educational level of bipolar patients correlated negatively with the awareness of medication effects indicating that patients with higher education show significantly better insight in that dimension.

In addition, it was found in the current study that, there was a highly statistical difference among insight and patient's diagnosis (table 7). It was noticed that, schizophrenics and manic patients have a lack of insight respectively, while insight increased among depressed and schizoaffective patients. This could be related to that depressed and schizoaffective patients have less worsening in psychotic symptoms. These results are supported by, **Fennig et al., (1996)** who examined insight in a diagnostically heterogeneous sample of clients during their first hospitalization at the 6-month follow-up, a substantial number of the clients diagnosed with schizophrenia, 'other psychosis,' and delusional disorder lacked insight. In the subgroup of clients with schizophrenia whose insight ratings declined at the 6-month follow-up, the

decrease in insight co-occurred with the worsening of psychosis in a majority of cases.

In this study, it was found that there was negative weak significant correlation among symptoms severity and insight (figure 1). Therefore, poor insight was associated with greater psychiatric symptoms severity. These results, that link between insight and severity of symptoms offering hope that treating the symptoms will improve insight. This finding is supported by **De Hert et al., (2009)** who reported that, unawareness of symptoms is related to severity of illness in schizophrenic patients. While contradicted with these findings of **Saravanan et al., (2007)** who stated that, no significant correlation was found between brief psychiatric total score and schedule assessment of insight.

### Conclusion

Based in the results of the present study, it is concluded that, the majority of the studied patients had moderate severe psychotic symptoms. As well as more than half of the studied patients had lack of insight. Insight increased among university and secondary educated patients, among depressed and schizoaffective patients, while it decreased among schizophrenia, and manic patients. On the other hand, there was negative weak significant correlation among symptoms severity and insight; therefore; those with poorer prognosis tend to be less insightful by their illness.

### Recommendations based on Results

Psycho educational programs for patients to improve patient's insight, and for health care workers regarding the role of insight in treating psychiatric disorders and its relationship to variables such as medication compliance, treatment compliance, hospitalization, and psychosocial functioning, in order to plan and provide effective therapeutic interventions and services to their clients.

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