UNAWARENESS AND MISATTRIBUTION OF SYMPTOMS IN SCHIZOPHRENIA: RELATIONSHIP WITH SYMPTOM CLUSTERS AND SOCIO-DEMOGRAPHIC VARIABLES

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BACKGROUND

Previous studies suggest that poor insight in psychosis is not related or only modestly related to the severity of symptoms(1,2), leading to the conclusion that insight could be an independent phenomenological feature of schizophrenia or may have a non-linear relationship with symptoms severity. So far, little is known about insight into particular psychotic symptoms, whereas symptoms are different in nature and might be influenced by different socio-cultural, neurobiological or psychological factors(3,4). The aim of this study is to describe and deeply explore the relationship between insight and psychopathology -considering the classical multiple dimensions of insight as well as unawareness and misattribution into particular symptoms - in a sample of schizophrenic patients.

METHODS

A multicenter cross-sectional naturalistic study of 248 schizophrenic patients (180 men and 68 women) with a diagnosis of schizophrenia (DSM-IV criteria) were recruited from in-patient units and community mental health services; with mean age of 38 years (SD=11.6), a mean length of illness of 16 years (SD= 11.2) and a mean age at onset of 21years (SD= 6.3). The majority of them were in chronic stages (83.1%). All patients were symptomatically stable at the time of evaluation. They were all taking atypical/typical antipsychotic medication.

Exclusion criteria included severe neurological illness, severe traumatic brain injury, inability for the comprehension of the language and IQ <65. Severity of psychopathology was assessed using Positive and Negative Syndrome Scale (PANSS) and Lindenmayer's Factors -Positive, Negative, Cognitive, Depressive and Excitement- were obtained. The deficit of insight and its three dimensions of awareness – of illness, of effects of medication, of social consequences- and the awareness and attribution of each different symptom were evaluated by the Scale of Unawareness of Mental Disorders (SUMD). Functionality was measured by GAF Scale. Premorbid IQ was estimated by verbal subscale of WAIS.

Normality of data distribution for each variable was analyzed using the Kolmogorov-Smirnov test (two-tailed, p<.05). Student-T Test was used in order to compare categorical variables with insight variables. Pearson (if n>30) and Spearman (if n<30) correlations were performed to assess the relation between clinical and insight variables. Since multiple variables were correlated, the level of significance was established at p<=0.01. Stepwise regression models were performed including all the socio-demographic and clinical variables that were significant at the bivariant analysis.

RESULTS

Conversion of the SUMD score of symptoms into dichotomic categories (aware or partial aware / unaware) shows that a high number of patients express some awareness of symptoms like hallucinations (62%), poor control of aggressive impulses (62%), apathy (76%), anhedonia (62%), attention problems (76%), and poor social relationships (70%); but few patients are total or partial aware of their delusion (37%), unusual appearance (28%), poor social judgment (34%) or unusual eye contact (37%). (Table 1)

General insight dimensions showed small significant correlations with positive, cognitive and excitement factors of psychopathology; whereas these symptom factors showed higher correlations with unawareness of particular psychotic symptoms (ranging from r= 0,2 to r= 0,4) as well as with the total unawareness of symptoms dimension (r= 0,3; p< .000)

Significant covariant variables were age, gender, IQ, inpatient vs outpatient and the positive, negative, cognitive and excitement factors.

Regression models showed a small significant predictive value of positive and cognitive symptoms in the three main insight dimensions (Table 2) as well as a moderate one in the prediction of awareness of particular symptoms. (Table 3)

Misattribution of symptoms seems to be independent from symptom severity and other psychosocial and clinical variables.

Table 1: Total or partial awareness of each symptom

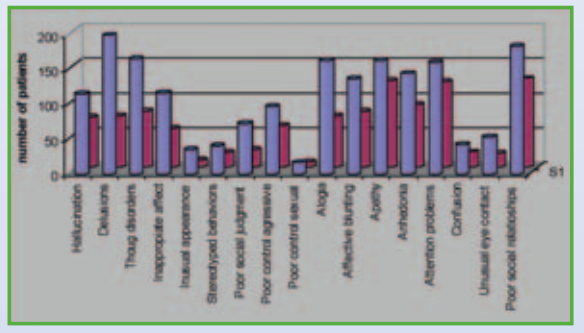

Table 2: Regression models of sociodemographic and clinical variables explaining the main insight dimensions

	Age	Gender	Intellectual Coeficient	Inpatients or Outpatients	Depression Factor	Excitement Factor	Positive Factor	Negative Factor	Cognitive Factor	
	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	Model R2
1. Unawareness of Disorder				0,551 (0,109-0,993) 0,015			0,083 (0,048-0,119) 0,000			0,143
2. Unawareness Medication	0,021 (0,003-0,038) 0,025			0,758 (0,306-1,210) 0,001			0,058 (0,021-0,095) 0,002			0,18
3. Unawareness social consequences							0,048 (0,010-0,087) 0,014		0,063 (0,030-0,097) 0,000	0,119
Total Unawareness	0,015 (0,001-0,029) 0,033			0,413 (0,077-0,748) 0,016			0,044 (0,015-0,073) 0,003		0,040 (0,016-0,065) 0,001	0,236
Total Misattribution										

Table 3: Regression models of sociodemographic and clinical variables explaining unawareness into each particular psychotic symptom

	Age	Gender	Intellectual Coeficient	Inpatients or Outpatients	Depression Factor	Excitement Factor	Positive Factor	Negative Factor	Cognitive Factor	
	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	B (CI) pvalue	Model R2
4.Hallucinations			-0,030 (-0,054- -0,007) 0,012						0,072 (0,018-0,126) 0,009	0,191
5. Delusions	0,029 (0,009-0,049) 0,004		-0,020 (-0,036- -0,004) 0,0012	0,624 (0,114-1,134) 0,017			0,053 (0,007-0,089) 0,025			0,204
6. Thought Disorder	0,028 (0,005-0,051) 0,017	-0,942 (-1,507- -0,378) 0,001				0,065 (0,000-0,130) 0,048			0,069 (0,024-0,114) 0,003	0,236
7. Innapropriate Affect							0,080 (0,020-0,141) 0,010			0,057
8. Unusual appearance										
9.Stereotyped /Ritualistic r behaviou									0,103 (0,035-0,172) 0,004	0,192
10. Poor social judgement							0,130 (0,068-0,191) 0,000			0,202
11. Poor control of aggression									0,085 (0,036-0,133) 0,001	0,112
12. Poor control of sexual impulse										
13. Alogia										
14. Blunted affect	0,033 (0,007-0,060) 0,013						0,073 (0,016-0,131) 0,013			0,107
15. Apathy								0,053 (0,027-0,078) 0,000		0,097
16. Anhedonia/ social withdrawal								0,044 (0,013-0,076) 0,006		0,052
17. Poor attention	0,027 (0,005-0,050) 0,017					0,095 (0,032-0,158) 0,003			0,046 (0,003-0,090) 0,037	0,183
18.Confusion/disorientation										
19. unusual visual contact										
20. Poor social relationships	0,027 (0,003-0,051) 0,026					0,093 (0,029-0,157) 0,005				0,088

Clinical programme: 1. outpatient, 2. inpatient. Gender: 1 women, 2 men

DISCUSSION

Insight in schizophrenia is a multi-phased phenomenon that is more than "just psychopathology" and that the awareness of particular symptoms is the dimension most highly influenced by clinical severity. Symptoms have different degrees of opacity to awareness.

The positive and cognitive psychopathological factors are the most strongly linked to the phenomenology of insight, supporting the neuropsychological view of insight. The consistently reported relationship between insight and negative symptoms does in fact refer to cognitive aspects of negative symptoms rather than to affective ones such as emotional withdrawal or blunted affect.

Our results support findings reporting a lack of relationship between insight and depressive symptoms.

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