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Awareness of illness and outcome in schizophrenia

Abstract The purpose of the present study was to investigate whether awareness of illness affects specific measures of outcome in schizophrenia. Patient awareness was evaluated using a shortened version of the Scale to Assess Unawareness of Mental Disorder (SUMD). Patient outcome was assessed by means of the Strauss-Carpenter scale. Our findings indicate that lack of awareness of "negative symptoms" has a considerable impact on outcome: in fact "Social Contacts" highly correlated with Blunt Affect, Anhedonia and Asociality items on the SUMD. Lack of awareness seems then to be a powerful predictor of poor outcome.

Key words Awareness of illness · Outcome · Schizophrenia

Introduction

Recent interest in the exploration of awareness of illness in clinical psychiatry has focused mainly on correlations between levels of awareness and clinical, sociodemographic, neuropsychological and neuromorphological variables [1; 2; 4; 8; 9]. Awareness of illness is a primary factor related to good versus poor outcome in schizophrenia. That is, awareness of having a mental disorder may have significant relevance in prognosis and treatment interventions. Recent work has focused specifically on the relationship between the awareness of mental disorder and the treatment outcome [6]. However, results of prior research on awareness of mental disorder and outcome in schizophrenia are not unequivocal, due to empirical and methodological limitations [6]. The construct of awareness of illness was often vaguely defined and good versus poor insight criteria were inconclusively specified [3]. The purpose of the present study was to further investigate whether awareness of illness affects specific measures of outcome in schizophrenia. Therefore, several dimensions of awareness of illness were assessed and correlated with measures of outcome.

Methods

Subjects

Participants in this study included 30 schizophrenic patients (13 women and 17 men) consecutively admitted to a research ward. The subjects were between the ages of 22 and 65 years (mean ± SD, 36.3 ± 12.2) and their age at onset was 24.03 ± 5.47 (mean ± SD). All subjects were diagnosed according to DSM-IV criteria, ascertained on the basis of a personal interview by a senior psychiatrist (A.R.) and medical chart reviews. The patients were psychiatrically stabilized before beginning assessment procedures using neuroleptic medications (equivalent mean daily doses of chlorpromazine (CPLZ) were 664.2 ± 230.9 mg), and all were monitored on an ongoing basis by an attending psychiatrist.

Procedure and assessment measures

Patient awareness was evaluated using a shortened version of the Scale to Assess Unawareness of Mental Disorder (SUMD) [1]. The SUMD assesses awareness of mental disorder on nine specific dimensions using a four-point scale (0, symptom not present; 1, aware of symptom; 2, somewhat aware of symptom; 3, unaware of symptom). Areas assessed included awareness of Mental Disorder (MD), Social Consequences of illness (SC), Effects of Medication (MED), Hallucinations (HAL), Delusions (DEL), Thought Disorder (TD), Flat or Blunt Affect (BA), Anhedonia (ANH), Asociality (ASO). Patient outcome was assessed by means of the Strauss-Carpenter scale (SCS) [7]. This scale consists of four subscales rated 0-4. Areas assessed included Hospital Stay (HS), Social Contacts (SC), Useful Employment (UE) and Severity of Symptoms (SS). In order to categorize the patient sample into good vs poor outcome, we split the group on the basis of the median of the SCS score ("poor outcome" patients: score < 8; "good outcome" patients: score > 8).

The sample was divided into a low and high dose (494.13 + 172.20 and 834.26 + 290.71 CLPZ mg equivalents, respectively) group on the basis of the "median" neuroleptic dose expressed as mg CLPZ equivalents. Interrater reliability on the SUMD scores was verified by a series of independent interviews conducted by two of us (A. R. and P. S.), giving relatively high values (r ranging from 0.75 to 0.88).

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Table 1 Descriptive statistics for SUMD and SCS scores ($n = 30$)

	Poor Outcome ($n = 17$)	Good Outcome ($n = 13$)			Correlations (Pearson r)				
	mean ± SD	mean ± SD	t	p	Strauss Carpenter Scale (SCS)[a]				
Awareness of [b]:					HS	SC	UE	SS	TOT
Mental disorder	2.30 ± 0.85	1.85 ± 0.80	1.47	NS	–0.16	–0.13	0.04	–0.41	–0.26
Social consequences	2.41 ± 0.79	1.85 ± 0.89	1.83	NS	–0.23	–0.34	0.04	–0.22	–0.31
Medication	1.88 ± 0.93	1.69 ± 0.95	0.55	NS	–0.29	–0.21	0.23	–0.22	–0.16
Hallucinations	1.52 ± 1.2	0.84 ± 1.1	1.59	NS	–0.01	–0.33	0.06	–0.37	–0.31
Delusions	2.47 ± 0.87	1.92 ± 1.4	1.33	NS	–0.27	–0.35	0.04	–0.53*	–0.46*
Thought disorder	1.88 ± 1.45	1.31 ± 1.50	1.06	NS	–0.15	–0.11	–0.19	–0.40	–0.36
Blunt affect	1.82 ± 1.24	0.31 ± 0.85	3.78	0.001	–0.35	–0.61*	–0.15	–0.27	–0.60*
Anhedonia	1.65 ± 0.93	0.85 ± 0.69	2.60	0.01	–0.02	–0.46*	–0.06	–0.22	–0.38
Asociality	2.0 ± 1	0.61 ± 0.87	3.97	0.000	0.08	–0.57*	–0.19	–0.13	–0.44*

[a] see text for abbreviations; higher scores indicate good outcome
[b] higher scores indicate less awareness

*p < .01 values are reported

Results

Among the several statistically significant correlations, only those highly significant (p < .01) were discussed (Table 1). Two-tailed *t-test* for independent samples showed good-outcome patients to have statistically significant lower SUMD scores on the BA, ANH and ASO items compared with poor-outcome patients. No significant difference in CPLZ equivalents between good and poor outcome patients were observed. Significant correlations were found between "total score" on the SCS and DEL, BA and ASO items on the SUMD (r = –0.46, p < 0.01, r = –0.60, p < 0.01 and r = –0.44, p < 0.01, respectively). The SCS Social Contacts score did highly correlate with 3 of the SUMD items (BA, ANH and ASO) and the Severity of Symptoms score did highly correlate whit DEL. There were no significant differences between low vs high dose groups in SUMD and SCS scores.

Discussion

To the best of our knowledge, no other study evaluated disease outcome in relation to awareness of illness assessed by multiple dimensions of mental disorder; our findings indicate that the lack of awareness of "negative symptoms" has a considerable impact on outcome. In the light of the multidetermined nature of outcome, which is known to be influenced by social, clinical, and biological factors [1], we would not expect to find variables which alone have a high or "absolute" prognostic value, especially in such a small study group. The selection of an inpatient population could be a limitation of the study so that our findings cannot be extended to other clinical groups. Follow-up studies are needed to evaluate the stability of the awareness of illness over time as recently pointed out by Smith et al. [10]. These authors reported that awareness of illness may vary depending on factors such as course and phase of ill-

ness. Furthermore, we cannot exclude that in some patients high neuroleptic doses could induce secondary negative symptoms or influence the patient's awareness of illness, even though there is a wide consensus that conventional neuroleptics have a global beneficial effect on several cognitive functions [11]. However, in our sample no differences were seen between the low vs high dose group's SUMD scores. Furthermore, within a clinical and neuropsychological framework, it is conceivable that recently recovered patients showed an improvement of insight as suggested by Carrol et al. and Jorgensen [12; 13].

However, our results indicate that the degree of awareness may be one relevant factor in determining the clinical outcome. Interestingly, within the SCS construct, the Social Contacts showed the highest correlations with the SUMD items, especially with SUMD "negative symptoms". Furthermore, we found a statistically significant increase of awareness of "negative symptoms" (BA, ANH, ASO) in the good-outcome group but we did not find differences in the "positive symptoms" dimension (HAL, DEL, TD) between the two outcome groups. In other words, lack of awareness of "negative symptoms" within the SUMD construct seems to be the most powerful predictor of the "social component" of the SCS. Social cognition could be an interesting research field to fill the gap between social functioning, symptoms and neurocognitive functioning [5].

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