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The Diagnostic Value in Assessing Mood Congruence in Delusions and Hallucinations and Their Relationship to the Affective State

G. Winokur[1], C. Scharfetter[2], and J. Angst[2]

[1] Department of Psychiatry, University of Iowa College of Medicine, Iowa City, IA 52242, USA
[2] Psychiatric University Hospital, Research Department, CH-8029 Zürich, Switzerland

Summary. An examination was carried out on 140 schizophrenics, 34 schizoaffective manics, 6 schizoaffective depressives, 59 unipolars, and 30 bipolars to determine the variables of affective states and mood-congruent and mood-incongruent psychotic symptoms. These patients had been admitted to a hospital in Zürich and were systematically diagnosed, using both clinical and computer-derived systems. Forty-eight patients (18%) had both mood-congruent and incongruent psychotic symptoms. However, the affective disorders usually showed mood-congruent symptoms and the schizophrenics the mood-incongruent types. The schizoaffectives were likely to show both types. There was a marked dissociation between affective states and mood congruence in the schizophrenics. Though the majority of these patients showed depressive syndromes, they were quite unlikely to have mood-congruent symptoms. Likewise, 25% of the schizophrenics had manic-like syndromes, which contrasted with the fact that they rarely had mood-congruent psychotic delusions and hallucinations.

Key words: Schizophrenia – Schizoaffective disorder – Unipolar depression – Bipolar disorder – Mood-congruent and incongruent psychotic symptoms

Introduction

The American nomenclature (DSM-III) makes a special point of differentiating mood-congruent psychotic features from mood-incongruent psychotic features. European psychiatry started this distinction by Meier's work (1912, 1923) who distinguished catathymic, synthymic and athymic psychotic symptoms. In Bleuler's textbook (Bleuler 1983) the differential diagnosis between affective disorders and schizophrenia is partially based on the distinction between synthymic (mood-congruent) and catathymic (mood-incongruent) symptoms. Delusions and/or hallucinations that are consistent with a depressed or manic mood are considered mood-congruent. The content of such psychotic symptoms would include guilt, poverty, disease, death, self-depreciation, or punishment which is deserved. The manic side of the mood-congruent concept would include delusions and hallucinations relevant to special powers or special relationships. Alternatively, mood-incongruent psychotic features bear no relationship to the affective state of the individual. Examples of mood-incongruent delusions and hallucinations would be persecutory delusions, thought insertion, symbolism, delusions of being controlled, or delusions of depersonalization and derealization.

It would be useful to determine whether these qualitatively different kinds of psychotic symptoms are of any diagnostic value. Certainly, mood-congruent psychotic symptoms have classically been associated with the affective disorders, both bipolar and unipolar, whereas mood-incongruent psychotic symptoms have been considered associated with the schizophrenias. A systematic evaluation of this problem would help in establishing more precise diagnostic criteria.

Methodology

The patients are part of the large genetic study of schizophrenia, schizoaffective psychoses, and affective illnesses (Scharfetter and Nüsperli 1980). The diagnoses of the patients are as follows: hebephrenia, 33; catatonia, 38; paranoid schizophrenia, 69; schizoaffective psychosis, 40; unipolar affective disorder, 59; bipolar affective disorder, 30. The diagnoses were made according to a Glossary of Mental Disorders, ICD-8 (1968). The patients were random admissions from newly admitted patients to the Psychiatrische Universitätsklinik, Zürich, between 1970 and 1976. In a subgroup of 115 of the 269 probands there was a comparison of the clinical diagnoses to computer-derived (Catego) diagnoses. These were based on Present State Examination. The agreement between the clinical method based on the international classification and the computer-derived method was found to be acceptably high (Scharfetter et al. 1976). For the affective disorders agreement was extremely high. It was possible to divide delusions and hallucinations into mood-congruent and incongruent in the probands. Some examples follow:

M.N. was a 68-year-old man who was depressed, agitated, self-depreciatory, and pessimistic about the future. He believed that death was impending and that his intestines were blocked. He felt that people were speaking about him. He had olfactory hallucinations, smelling himself as a rotting corpse. He had no formal thought disorder. His delusions and hallucinations were considered mood-congruent.

M.A. was a 52-year-old female who was depressed and felt herself inferior and worthless. She believed that her badness

and inferiority were discussed by others but she did not actually hear this. She believed herself to be affected by both venereal disease and cancer. She showed decreased concentration, sleep problems, loss of appetite and weight. Her diagnosis was unipolar depression; the delusions were considered mood-congruent.

J.B. was a 23-year-old man with a diagnosis of acute paranoid schizophrenia. He felt himself tested and observed. He believed that strange men in cars were waiting in order to follow him. He heard voices of strange persons and heard shots. He had olfactory hallucinations, a small of fire; he had haptic hallucinations, vibrations and humming throughout his body. He believed that the floor was vibrating. His thinking was abnormal and he was bewildered and frightened. His delusions and hallucinations were considered mood-incongruent.

S.R. was a 40-year-old female with a diagnosis of chronic paranoid schizophrenia. She felt that she was being harmed and negatively influenced as well as being directed by outside forces. She felt that her body was influenced by rays and by electric current; she heard voices of various persons directed toward her ("inner voices in the head"). Sometimes she thought that her thoughts were being broadcast. Her mood was anxious; she was distrustful but at other times seemed cheerful. She was overtalkative. Delusions and hallucinations were considered mood-incongruent.

V.M. was a 35-year-old female teacher with incongruent psychotic symptoms. She believed that her soul was lost and that she had changed toward being a lifeless being. She also believed that others, e.g., her pupils, changed. She was delusional and frightened of impending danger. She hallucinated visually and believed that food changed to the shape of the patient herself. Also, she had an undefinable smell and had haptic hallucinations, a pain from a stick in her toe. Her thinking was disturbed. Sometimes her speech was disconnected and interrupted. She also had motor symptoms and was intermittently stuporous. Her diagnosis was chronic schizophrenia.

A more complex clinical picture occurs with a diagnosis of schizoaffective reaction. Here, we find mood-congruent and incongruent psychotic symptoms.

H.K. was a 30-year-old male who believed that a new world was starting and that he had been directly delegated by God to help in this mission. He believed he was able to influence the weather. These were considered mood-congruent delusions. He was elated and felt lucky, but at other times he was afraid and doubtful whether he could live up to the forthcoming task. He had racing thoughts. He was circumstantial and neologistic. He believed that this thought was directed by extraterrestrial agencies, even God himself. As regards hallucinations, he heard the voice of God, and he saw signs of people communicating a special meaning to him. He felt that his body was full of electricity and perceived the "smell of death." These appear to be mood-incongruent hallucinations. He felt himself directed by outside powers and that he had lost the boundary between himself and others. Much of this is also mood-incongruent. His diagnosis was that of an acute, first-episode schizoaffective disorder, predominantly manic.

The psychopathology in the schizophrenic probands and other probands was documented by the PSE system and the AMP system (Wing et al. 1974; Scharfetter 1972). Further, there was a psychopathology review written for each patient, which took into account the symptoms that were noted on these systems. Depressive and maniclike syndromes were evaluated for each patient. The depressive syndrome took into account the presence of depressed mood, retardation, a pessimistic outlook, bodily complaints such as chest pressure, headache, sleeping problems, and feeling worthless. A maniclike syndrome took into account elation, aggressivity, overactivity, presence of pride, overtalkativeness, increased motor activity, setting too many goals, and personal intrusiveness.

To evaluate these two syndromes no special criteria were set up. Thus, all questions were asked and the examiner arrived at a decision over the presence or absence of a maniclike or a depressive syndrome. An example is that of E.M., a man aged 31, who believed that he was involuntarily under the harmful influence of others and also believed that he did harm to the astronauts by lighting cigarettes and by drinking cold water. He believed that his thoughts were directed by outside forces and that thoughts were implanted and extracted. He heard voices inside his head and felt that he could feel electricity in his head and hair. His mood was considered depressed, and he was noted to be tense, agitated, and anxious. Thus, he earned the syndrome of depression at the same time that he had mood-incongruent delusions and hallucinations. Another example is that of L.A., a 51-year-old male, who was diagnosed as having chronic paranoid schizophrenia. His mood was anxious and depressed and he had marked feelings of self-depreciation and guilt. He chronically heard voices, mostly of the devil, during which voices shouted at him and evoked feelings of guilt from his activities in a former life. He believed that he would be condemned for eternity. His thoughts were directed and influenced by outside source. In this case, the patient was considered a schizophrenic, but in fact he had mood-congruent delusions, hallucinations, and depression. Thus, in the first case, there would be a dissociation between some of the delusions and hallucinations, but in the second case, also a schizophrenic, there would be agreement between the mood and the congruency of the psychotic symptoms.

The ratings of delusions, hallucinations, depressive and maniclike syndromes, and incongruent affect all occurred during the index episode, though whether they were present at the same minute is impossible to tell.

One must note that the diagnoses themselves are to some extent dependent on the qualitative aspects of the psychotic symptoms. Thus, persecutory delusions (non-mood-congruent) would be commonly but not always associated with the diagnosis of schizophrenia. Likewise, the diagnosis of schizophrenia might well be associated with passivity delusions, i.e., the kind that lead a person to believe that his mind and body is somehow controlled by some outside force. This, of course, would also be mood-incongruent. Alternatively, a manic state might be associated with delusions of special competence and power (mood-congruent), whereas depressed patients may have the congruent delusion of being a sinner or being rightfully punished for a bad behavior. Recognizing the fact that the diagnosis is to some extent relevant to the question of mood-congruence in psychotic symptomatology, it is nevertheless valuable to determine the frequency of mood-congruent psychotic symptoms in the schizophrenic group and mood-incongruent symptomatology in the affectively ill group. Specifically, mood-congruence and incongruence was rated for the following types of symptoms: unsystematic and systematic delusions, auditory and visual, and other hallucinations.

Results

Relatively few patients in the study had neither mood-congruent psychotic symptoms nor mood-incongruent psychotic symptoms. Table 1 gives the concordance between the two types of symptoms in the entire group of 269 patients. Fifty-seven (21%) had neither type of psychotic symptoms. Forty (15%) had mood-congruent psychotic symptoms but no mood-incongruent symptoms; and 124 (46%) had mood-incongruent symptoms but no mood-congruent ones. Forty-eight patients (18%) had both types of symptoms.

Table 1. Concurrence of mood-incongruent and mood-congruent psychotic symptoms (delusions and hallucinations) in 269 patients

Mood-congruent psychotic symptoms	Mood-incongruent psychotic symptoms		
	None	One	More than one
None	57	20	104
One	29	13	21
More than one	11	4	10

Table 2 presents the affective states (depressive syndrome, manic syndrome and incongruent affect) of the patients in this study and the presence of mood-congruent and incongruent psychotic symptoms according to diagnosis. As might be expected, incongruent affect was more frequently seen in the schizophrenics as well as the schizoaffectives. A depressive syndrome was quite common in all groups. The schizophrenics showed depressive syndromes in over two-thirds of the cases. Maniclike syndromes were more frequent in the schizoaffective manics and the bipolars, as might be expected from the definition, but the schizophrenics showed this in a quarter of the cases. The mood-congruent and mood-incongruent psychotic symptoms separated the diagnostic groups, i.e., the schizophrenics from the affectives—bipolar and unipolar—far better than did the presence of a depressive syndrome. Mood-congruent psychotic symptoms were rarely seen in schizophrenics but commonly seen in the affective illnesses. Incongruent symptoms were far more frequently seen in the schizophrenics and separated the schizophrenics from the bipolars and the unipolars very well. The schizoaffectives

Table 2. Incongruent affect, depressive and maniclike syndromes, and mood congruence in various diagnostic groups

	Diagnostic groups				
	Schizophrenia	Schizoaffective manic	Schizoaffective depressive	Unipolar	Bipolar
N	140	34	6	59	30
	N (%)	*N* (%)	*N* (%)	*N* (%)	*N* (%)
Incongruent affect	133 (95)	31 (91)	4 (67)	2 (3)	5 (17)
Depressive syndrome	96 (69)	33 (97)	6 (100)	59 (100)	29 (97)
Maniclike syndrome	35 (25)	34 (100)	0 (0)	3 (5)	28 (93)
Only mood-congruent psychotic symptoms	1 (1)	1 (3)	0 (0)	27 (46)	10 (33)
Only mood-incongruent psychotic symptoms	117 (84)	7 (21)	1 (17)	0 (0)	1 (3)
Both congruent and mood incongruent	16 (11)	23 (68)	4 (67)	1 (2)	2 (7)

Table 3. Frequency of mood-congruent and incongruent psychotic symptoms in various diagnostic groups

	Diagnostic groups					p[a]
	Schizo-phrenia	Schizo-affective manic	Schizo-affective depressive	Unipolar	Bipolar	
N	140	34	6	59	30	
Type of psychotic symptom	*N* (%)	*N* (%)	*N* (%)	*N* (%)	*N* (%)	
Delusions, unsystematic, congruent	13 (9)	23 (68)	4 (67)	26 (44)	11 (37)	<0.001
Delusions, unsystematic, incongruent	132 (94)	29 (85)	5 (83)	1 (2)	2 (7)	<0.001
Auditory hallucinations, congruent	9 (6)	7 (20)	3 (50)	3 (5)	0 (0)	n.s.
Auditory hallucinations, incongruent	100 (71)	16 (47)	2 (33)	0 (0)	1 (3)	<0.001
Visual hallucinations, congruent	2 (1)	0 (0)	0 (0)	2 (3)	1 (3)	n.s.
Visual hallucinations, incongruent	43 (31)	7 (21)	1 (17)	0 (0)	2 (7)	<0.001
Other hallucinations, congruent	3 (2)	4 (12)	0 (0)	3 (5)	3 (10)	n.s.
Other hallucinations, incongruent	67 (48)	7 (21)	1 (17)	0 (0)	1 (3)	<0.001

[a] 2×2 χ^2 comparison between combined unipolars + bipolars vs schizophrenics (schizoaffectives are excluded)

showed a high percent of subjects who had both types of psychotic symptoms.

Table 3 gives the specific frequencies of the psychotic symptoms according to diagnosis. Again, it is clear that the schizophrenics are likely to have mood-incongruent symptoms, the affectives mood-congruent symptoms, and the schizoaffectives both. Congruent visual hallucinations are so rare that they would not be useful in differential diagnosis.

Discussion

The data from this group of 269 psychotic probands strongly support the value of assessing mood-congruence in psychotic symptoms. Patients that were given the diagnosis of schizophrenia were very likely to have mood-incongruent psychotic symptoms. Unipolar depressives and bipolar patients showed opposite trends.

One might argue that the argument is circular, that the diagnosis was made on the basis of the congruency of the psychotic symptoms, but from Table 2 one might note that incongruent affect was frequently seen in the schizophrenics and infrequently seen in the affective-disorder patients. The schizoaffectives were in between. This shows that the diagnosis of schizophrenia was not dependent on incongruent delusions and hallucinations. Additional proof that incongruency was not necessary for the diagnosis of schizophrenia is the fact that 89% of the patients diagnosed as schizophrenic had schizophrenic thought disorder as opposed to only 10% of the combined bipolar and unipolar group.

Congruency in affect is defined differently from congruency in delusions and hallucinations. For the psychotic symptoms congruency is related to the association with depressive or manic affect. Affect congruency relates to a broader definition encompassing blunted and inappropriate affect, as well as a dissociation between the emotional state and the verbal and motor behavior of the patient.

Although mood-congruency is a very good factor in providing resolution between schizophrenics and nonschizophrenics (leaving aside the schizoaffectives), the presence of a depressive syndrome is far less valuable. At some point in the course of their illnesses, the majority of patients with all diagnoses showed a depressive syndrome. Even the manic syndrome provided difficulty as 25% of the schizophrenics showed this also. On the basis of these data, the use of a simple depressive syndrome in making a diagnosis is not valuable, but the presence of mood-congruent and mood-incongruent psychotic symptoms could be very useful. Congruency is not a perfect tool for resolving diagnostic issued, but it seems quite useful.

Of special interest is the fact that mood-congruent psychotic symptoms are rarely seen in schizophrenia even though 69% of the schizophrenics have a depressive syndrome and 25% a maniclike syndrome. In a sense, this dissociation between the qualitative aspects of the psychotic symptomatology and the presence of an affective state seems particularly relevant to schizophrenia. This is an area for further research. It suggests that the presence of mood-incongruent symptoms may under certain circumstances take precedence over the affective state in diagnosis.

Finally, the schizoaffectives seem to show both mood-congruent and as mood-incongruent symptomatology. The definition of this syndrome includes a "tendency to recurrence" and a "tendency to remission" with no residual defect. A previous study of first-degree family members of this group showed them to have a combined family history (in primary relatives) for schizoaffective disorder, unipolar illness, and bipolar illness of 11.37% (Angst and Scharfetter 1979). This can be compared to the morbid risk for the same illnesses in first-degree family members in unipolars of 11.48% and in bipolars of 9.91%. Thus, there is no meaningful difference between the schizoaffectives, unipolars, and bipolars as regards the family history of remitting or affective disorder. The schizoaffectives, however, remain a problem in the sense that they have the course of an affective disorder, the family history of an affective disorder, but a mixture of symptoms commonly seen in both schizophrenia and affective disorder, the symptoms of which differentiate the two groups from each other. In the same study, the schizoaffectives showed a high degree of familial schizophrenia when compared to unipolars and bipolars. This is, of course, consistent with the possibility that the schizoaffectives may be either schizophrenic or affective disorder. It would be worthwhile to separate the schizoaffectives with a family history of schizophrenia to determine if there is a difference in the congruency of psychotic symptoms from those who lack a family history of schizophrenia.

We can conclude that congruent psychotic symptoms are far more frequent in patients with affective disorder, and mood-incongruent psychotic symptoms more frequent in patients with schizophrenia. The use of such symptomatology in resolving a diagnosis seems warranted. In fact, the question of mood-congruence of psychotic symptoms is much more useful than the presence of affective syndromes in making a diagnosis.

Of considerable interest is the dissociation between the presence of a depressive syndrome in schizophrenic patients and the absence of mood-congruent psychotic symptoms in these patients.

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