

NEGATIVE SYMPTOMS IN SCHIZOPHRENIA AND DEPRESSION

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SUMMARY

This study examines the differences between the prevalence of negative symptoms in schizophrenia and Major depression, diagnosed according to RDC, using Andreasen's Scale for Assessment of Negative Symptoms, SANS. Global ratings of affective flattening, avolition and inattention were significantly higher in schizophrenics whereas anhedonia - asociality were seen as commonly in depressives also. Most negative symptoms were more common in schizophrenics. Awareness of these symptoms and reduced sexual interests were significantly more in depression. Some symptoms were common in both groups. The results indicate that negative symptoms though commonly seen in depressives also, are more frequent in schizophrenic patients.

Introduction

Negative symptoms, generally defined as deficit or absence of normal functions (Strauss et al 1974) have been chiefly reported in Schizophrenic patients (Andreasen and Oslen 1982, Andreasen, 1982, Opler et al 1984, Lindenmayer et al 1984, Chaturvedi et al 1984, Chaturvedi et al 1985). The negative symptoms include avolition (poverty of speech), affective flattening, anhedonia, avolition and inattention (Andreasen 1982) and are considered important clinical features of schizophrenia, but are not pathognomonic of it. Their frequency in other psychiatric illnesses, as depression has been reported recently (Andreasen and Akiskal 1983, Pogue-Geile and Harrow 1984). Whereas Pogue-Geile and Harrow (1984) found negative symptoms to be infrequent in depressives during follow-up, Andreasen and Akiskal (1983) demonstrated that depressives and schizophrenics do not differ substantially in severity of nega-

tive symptoms. Characteristics of Negative symptoms and their prognostic value have been described by Chaturvedi and Sarmukadam (1985, a).

Since investigations on negative symptoms are generating more interest and the relevance of studying negative symptoms could have important implications, presentation of these symptoms in schizophrenia and depression need to be examined further. The aim of present study is to compare the frequency of occurrence of negative symptoms between schizophrenics and endogenous depressives.

Material and Methods

Patients diagnosed as schizophrenia and major endogenous depression according to Research and Diagnostic Criteria (Spitzer 1978) were selected consecutively for inclusion into the study. Patients between age of 20-55 years only were included. Patients

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with epilepsy, mental retardation, organic mental disorders, major physical illness and alcoholism or drug abuse were excluded. The negative symptoms in these patients were assessed using the Scale for Assessment of Negative symptoms, SANS (Andreasen 1981) by two psychiatrists. The scale has undergone tests for reliability, internal consistency and validation (Andreasen and Oslen 1982). The inter-rater and test-retest reliability of the scale was evaluated at this centre also, reported elsewhere (Mathai et al 1984). The rating of each of the components was made based on multiple sources of information, including direct observation by the investigators, nurse-in charge of the ward and from reports of the patients. Patients were rated on all the five sub-scales, affective flattening, alogia, avolition-apathy, anhedonia-asociality and attentional impairment.

The frequency distribution of each symptom definitely present was calculated separately for schizophrenics and depressives and comparison was performed using Z test for testing the equality of proportions.

Results

The two groups of patients were comparable in their demographic characteristics. Depression group (n = 34) had 18 male, 16 female cases; schizophrenia group (n = 30) consisted of 14 male, 16 female cases.

The duration of illness was however different between the groups. Whereas 76% of depressives had a duration less than 6 months, 18% between 6-12 months and 6% more than one year, only 10% of schizophrenics had duration less than 6 months 23% between 6-12 months and 67% had a duration of more than one year.

Table 1 shows global ratings on the five sub-scales in both the groups. Significantly more schizophrenics ($P < .01$) have affective flattening poverty of speech (alogia), avolition-apathy and inattention. Global ratings on anhedonia-asociality sub-scale had no significant differences, since large number of depressives as well as schizophrenics scored high on this sub-scale. Total scores are significantly higher ($P < .02$) in schizophrenic patients (Table 3).

Table 2 shows which individual negative symptoms are more common in schizophrenia, depression or in neither groups. More depressives have reported subjective awareness of these negative symptoms, whereas amongst the schizophrenics, subjective awareness of these symptoms was observed infrequently. Thought blocking was not found in any patient. Certain symptoms as physical anergia, increased response time, loss of recreational interests and poor relationship with friends and peers were equally common in both groups.

Table 1
Comparison between Schizophrenia Depression for Global Ratings of Negative Symptoms.

Negative Symptom	Schizophrenics		Depressives		Z Value	P
	n	(%)	n	(%)		
Affective Flattening	25	(83)	11	(32)	4.11	$P < .01$
Alogia	23	(77)	8	(23)	4.32	$P < .01$
Avolition-apathy	24	(80)	17	(50)	2.50	$P < .05$
Anhedonia - asociality	25	(83)	21	(26)	1.87	NS
Inattention	21	(70)	8	(23)	3.76	$P < .01$

Table 2
Common Negative Symptoms

- A. Symptoms significantly more frequent in Schizophrenia.**
1. Unchanging facial expression
 2. Reduced spontaneous movements
 3. Poor eye contact
 4. Affective non-responsivity
 5. Paucity of expressive gestures
 6. Inappropriate affect
 7. Lack of vocal inflections
 8. Poverty of speech and content
 9. Poor physical hygiene
 10. Impersistence at work
 11. Inability to feel intimacy and closeness
 12. Work and social inattention
- B. Symptoms significantly more frequent in Depression**
1. Subjective awareness of affective flattening
 2. Feelings of impoverished speech
 3. Feelings of avolition, apathy
 4. Reduced sexual interests and activities
 5. Feelings of anhedonia, asociality
 6. Feelings of lack of attention, inattention
- C. Symptoms present equally in schizophrenia and depression**
1. Increased latency of response
 2. Physical anergia
 3. Loss of recreational interests and activities
 4. Inability to form relationships with friends and peers
- D. Symptom absent in both depression and schizophrenia**
1. Thought blocking

Discussion

Discriminating between negative symp-

toms which are frequently noticed in different illnesses, is of practical importance. Since negative symptoms are not specific to any one psychotic illness, it is a worthwhile exercise to see if certain negative symptoms are specific or occur more commonly in any particular illness. A recent investigation by Andreasen and Akiskal (1983) compared the various components of affective blunting in patients with schizophrenia and depression and indicated that it was quite difficult to differentiate on this dimension. Schizophrenics differed from depressives in having more affective non-responsivity and inappropriate affect, a result similar to one in the present study. These findings would thus indicate that affective flattening is quite common in depression and that it cannot be used to discriminate between schizophrenia and depression (Andreasen and Akiskal 1983). However, in our study other components have also been found to be more frequent in schizophrenics (Table 2). It is likely that severity of flattening may differentiate but since severity of symptoms alter with the stages of disease it may not be of much importance. Already Andreasen and Akiskal (1983) have reported that depressives and schizophrenics do not differ substantially in severity of negative symptoms. Flat affect was reported in 24% of depressives at one and a half year follow-up by Pogue-Geile and Harrow (1984).

Table 3
Mean Scores of Negative Symptoms in Depressives and Schizophrenics.

	Schizophrenia			Depression			P
	Mean	±	S.D.	Mean	±	S.D.	
Affective flattening	14.13	±	6.03	8.38	±	5.81	P < .001
Alogia	5.9	±	4.09	3.97	±	4.14	NS
Avolition-apathy	7.37	±	3.75	7.32	±	4.39	NS
Anhedonia-asociality	8.9	±	5.20	9.79	±	3.93	NS
Inattention	4.3	±	2.67	3.47	±	3.16	NS
Total Negative Symptom Score	40.8	±	12.87	32.38	±	15.05	P < .02

Schizophrenic patients in the present study have shown more poverty of speech, as was observed by Pogue-Geile and Harrow (1984). Other negative symptoms as poor physical hygiene, impersistence at work, inattention and inability to feel intimacy were observed more in schizophrenics. Some of the differences could be due to the differing duration of illness between the two groups of patients more schizophrenics having a duration longer than one year. It seems probable that less specificity would be found during the acute phases of both illnesses, as was speculated by Pogue-Geile and Harrow (1984).

It is interesting to note that most depressives feel more aware of the feelings of impoverished speech, affective flattening and feelings of apathy and lack of interest to do work. These are understandable since such feelings indicate depressive symptoms rather than being negative symptoms themselves. These show the awareness of the person about his negative symptoms. Loss of libido is a recognised depressive symptom and has been scored by more depressives. Negative symptoms in depression assume importance since some of these may remain as residual symptoms or short term or subchronic sequelae (Cassano 1983, Pogue Geile and Harrow 1984). The precise relationship between depression and negative symptoms remains to be explored as the controversy pointed out by Lewine (1983), that many descriptions of negative symptoms and defect state explicitly include depressives items, needs to be resolved. This could be responsible for the high mean scores on each subscale in depressives. Except affective flattening, other negative symptom scores are comparable. Mean total score is, however, higher in Schizophrenia (Table 3).

In conclusion, it seems negative symptoms are non-specific, though commoner, and may be more severe and longer lasting in schizophrenia.

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