A SHORT SCALE FOR RATING PARANOID SCHIZOPHRENIA

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EXPERIMENTAL studies by O'Connor (2) and O'Connor and Rawnsley (3) have indicated the value of separating chronic schizophrenics into those who exhibit and those who do not exhibit paranoid symptoms. Other work by O'Connor and Venables (4) and Venables and O'Connor (6) has shown that performance of schizophrenic patients on experimental laboratory tasks may be clarified by dividing them into active or withdrawn groups by means of a rating scale (Venables, 5) in addition to a division on the basis of the presence of paranoid symptoms.

The aim of the present study is to devise a rating scale to give an operational definition of paranoid schizophrenia and to determine the relationship of this dimension to that defined by the "Activity-Withdrawal" scale.

The relevant literature was examined and colleagues' opinions requested on features which might be thought to characterize and conversely to be regularly absent in paranoid schizophrenia. Ten items which defined these features were extracted from the M.S.R.P.P. Scale (Lorr *et al.*, 1). Items 2, 4, 6, and 8 rated presence of delusions of external control, reference, persecution and grandeur, and 10 overtly expressed hostility. These symptoms were considered to be characteristic of paranoid schizophrenia. The remaining five, rating dirty unkempt appearance, incongruity of affect, disorientation in space and in time, and exhibition of bizarre postures were considered not to be characteristic of paranoid schizophrenia. All items were modified to be scored on a five-point basis if they were not already so scored. The ten items are shown in the Appendix.

One hundred male chronic (> two years stay) schizophrenic patients, mean age 43·20 S.D. 7·93 years, who had been in hospital for 14·18 S.D. 7·96 years were drawn at random from the total chronic schizophrenic population of a hospital. Only those patients who had undergone leucotomy were excluded. These 100 patients were rated on the ten selected items by seven charge nurses currently in charge of their wards. Scores on the ten scale items were intercorrelated and a centroid factor analysis carried out. Two significant factors and one of borderline significance were extracted. Loadings of the items on Factors I and II after a 45° rotation are shown in Table I (Column A). Factor II is clearly interpretable as paranoid schizophrenia. Items having high loadings on the first factor, orthogonal to Factor II, can be thought of as exemplifying deterioration or withdrawal.

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TABLE I

Factor Loadings on Rating Scale Items

	Factor I			Factor II		Factor III		Direction of Scoring
	A	B	C	A	B	B	C†	
1	·72	·65		−·01	−·13	·13		Dirty, unkempt
2	−·08	−·07		·83	·84	·17		Delusions of control
3	·53	·52		·17	·53	·03		Incongruity of affect
4	−·09	−·04		·78	·93	−·08		Delusions of reference
5	·85	·66		−·20	·15	·14		Disorientated for place
6	·09	·02		·98	·98	·19		Delusions of persecution
7	·81	·51		·37	·19	·16		Maintains bizarre postures
8	−·01	−·25		·82	·51	−·47		Delusions of grandeur
9	·94	·67		−·18	·02	·60		Disorientated for time
10	·16	·13		·46	·25	·36		Hostile
11*		·68	·42		−·04	−·49	−·54	Motionless
12		·79	·90		−·37	−·21	·06	Mute
13		·69	·56		−·22	−·55	−·70	Appears tired
14		·88	·80		−·22	·26	·19	No friends
15		·66	·90		−·16	−·33	−·12	Inaudible speech
16		·89	·76		·08	·10	·14	No interests
17		·88	·91		−·13	·06	·03	No conversation
18		·68	·48		−·13	−·52	−·66	Slow actions
19		·83	·89		−·18	·18	·11	Avoids others
20		·90	·91		−·11	−·15	−·02	Does not answer

* Items numbered 11–20 are those numbered 1–10 in Venables (5) the direction of scoring being reversed.

† Factor II in Venables (5) scored in the reversed direction.

In view of the possible identification of Factor I with withdrawal a second set of scores for another 100 male chronic schizophrenics was collected on both the present ten items and the ten items from the "Activity-Withdrawal" scale (Venables, 5). This second group of patients whose mean age was 42·01 S.D. 8·62 years and who had been in hospital a mean length of time of 12·34 S.D. 8·73 years were randomly selected from the total chronic schizophrenic populations of two hospitals. Ratings on the total of twenty items were carried out by 14 charge nurses.

After intercorrelation of scores on the twenty items a centroid factor analysis was carried out. Three significant factors were extracted. Loading on Factors I and II rotated (17° 45′ clockwise) and Factor III unrotated are shown in Table I (Columns B). Also in Table I (Columns C) are shown the loading previously obtained on Factors I and II (reversed) in the activity-withdrawal study. From these results it is seen that in the second analysis the loadings of the first ten items on the first two factors are in general similar to those obtained in the first analysis. Secondly, items 11–20 (items 1–10 in the activity-withdrawal scale) have high loadings on the first factor, previously defined in the first analysis by items 1, 3, 5, 7 and 9. It thus appears that Factor I can be considered as a factor similar to Activity–Withdrawal previously found, and that it is possible that withdrawal can also be considered as closely associated with deterioration. Thirdly, Factor III is seen to be loaded on the same items (11, 13 and 18) which previously had high loadings on Factor II in the Activity-Withdrawal analysis. These items are all concerned with motor inactivity in contrast to items not loaded on Factor III which are concerned more with social withdrawal. However, as in a social setting motor inactivity tends to bring about lack of social contact, the loadings of these items on the first factor are understandable. More difficulty is experienced in the interpretation of the high loading on Factor III of items 8 and 9. As argued previously (Venables, 5), there may not be much practical value in separating items having

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loadings on Factor III from the rest of the items which have loadings on Factor I in view of their high correlation. However, it may be useful in future work to attempt to get a purer measure of Factor III. The inter-rater reliability was found to be ·88 for scores defining Factor I and ·78 for those defining Factor II. The correlation of Factor I with age is —·04, and of Factor II with age —·11. In no cases were any of the patients under dosages of drugs which might be expected to produce confusional symptoms.

In summary the study has produced a scale of four items, numbers 2, 4, 6 and 8, which effectively identifies patients who currently exhibit paranoid symptoms, item 10 probably not being sufficiently highly loaded on Factor II to be worth including. Social withdrawal can be defined with some purity by items 1, 5, 16, 17, 19 and 20. For future study items 9, 11, 13 and 18 partially define a factor of motor withdrawal or inactivity.

The lack of association between the factors "Paranoid–nonparanoid" and "Active–withdrawn" indicated by their orthogonality is reinforced by examination of the distribution of patients scored on these dimensions. Contrary to what might be expected clinically an insignificant chi-squared test of the distribution shows that there is no tendency for withdrawn-nonparanoids or active-paranoids to be more numerous when compared with the other two possible categories.

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APPENDIX

Items 1 to 10

For Items 11 to 20 refer to Venables (5)

1. Does he typically keep himself clean or must he be reminded to wash or be washed? Does he keep himself neat and his hair combed, or, are his clothes unbuttoned, disarranged, or soiled with food, dirt or faeces?

1	2	3	4	5
Neater and cleaner than most	As neat and clean as most	Below average cleanliness and neatness	Distinctly sloppy and dirty	Requires special handling. Wets or soils self

2. Does he tend to suspect or to believe on slight evidence or without good reason that people and external forces are trying to or now do influence his behaviour and control his thinking?

1	2	3	4	5
No unjustified suspicions	Will admit suspicion when pressed	Easily admits suspicion	Openly states others are trying to control him	Has firm conviction that he is influenced or controlled

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3. How incongruous are his emotional responses? E.g. giggling or crying for no apparent reason or not showing any emotion when emotion would be appropriately shown.

1	2	3	4	5
As normal	Slightly different from normal	Responses somewhat incongruous	Distinctly incongruous	Very markedly incongruous

4. Does he tend to suspect or to believe on slight evidence or without good reason that some people talk about, refer to, or watch him?

1	2	3	4	5
No unjustified suspicions	Will admit suspicion	Easily admits suspicion	Openly states that he is watched	Has firm conviction of being watched

5. How well oriented is he as to where he is? Does he know (*a*) that he is in a hospital; (*b*) where the hospital is; (*c*) the name of the hospital?

1	2	3	4	5
As normal	Sometimes makes errors	Slight confusion	Very muddled	Completely confused

6. Does he tend to suspect or to believe on slight evidence or without good reason that some people are against him (persecuting, conspiring, cheating, depriving, punishing) in various ways?

1	2	3	4	5
No unjustified suspicions expressed	When pressed expresses belief that he is conspired against	Frequently inclined to suspect	Frank inclination to believe in persecution	Strongly expressed conviction of persecution

7. Does he assume or maintain peculiar, unnatural or bizarre postures?

1	2	3	4	5
None	On rare occasions	For short periods	Frequently	All the time

8. Does he have an exaggeratedly high opinion of himself or an unjustified belief or conviction of having unusual ability, knowledge, power, wealth or status?

1	2	3	4	5
No expressed high opinion of himself	When pressed expresses a high opinion of himself	Frequently expresses a high opinion of himself	Open conviction of unusual power, wealth, etc.	Strongly expressed conviction of grandiose or fantastic power, wealth, etc.

9. How well oriented is he as to time? For instance, does he know (*a*) the season; (*b*) the month; (*c*) the calendar year; (*d*) the day of the week; (*e*) how long he has been in hospital?

1	2	3	4	5
As normal	Occasional confusion	Slight confusion	Frequent confusion	Marked continuous confusion

10. Compared to others how openly hostile is he? Does he show little hostility or a high degree of ill will, resentment, bitterness or hate?

1	2	3	4	5
No open hostility	Relatively little hostility	Some hostility	Rather hostile	Very hostile

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