A PSYCHOTICISM SCALE IN HINDI: I. CONSTRUCTION AND INITIAL TRYOUTS

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SUMMARY

A psychoticism questionnaire was designed constituting 110 questions framed on the basis of the following constructs: desocialization, paranoia, thought disorder, depression, perceptual disturbance, superstitions and mania. In the initial tryout, it was administered to 40 psychotics, 40 neurotics and 40 normals and 40 items inadequately discriminating between psychotics and normals/neurotics were deleted. The revised questionnaire was administered, in second tryout, to 50 psychotics, 50 neurotics and 50 normals. The results were again subjected to item analysis and 10 more items were deleted as they could not discriminate significantly between neurotics and psychotics or where they discriminated between normals and neurotics. Kuder-Richardson formula 20 was used for reliability and criterion validity was assessed by comparing the three diagnostic groups with one another. Both these were satisfactory. Thus a psychoticism questionnaire of 60 items was constructed.

The work of Eysenck and Eysenck (1968) suggests that the three main dimensions: extraversion-introversion (E), neuroticism—stability (N) and psychoticism (P), may account for a large proportion of observed personality variables. Very little work has been done so far on measurement of psychoticism as a personality variable. Until recently, psychoticism was measured by psychomotor tests and physiological measure like two-flash threshold and skin conductance. Only recently it has become possible to measure psychoticism by a questionnaire method. The commonly used test for psychoticism is Eysenck's personality questionnaire which measures extraversion, neuroticism and social desirability besides psychoticism. There are a few psychological inventories in which schizophrenia, depression and mania scales constitute sub-scales of an inventory. There are some limitations when it is included as a sub-scale as it cannot cover all aspects of psychoticism.

In the present study, an attempt was made to construct a questionnaire to measure psychoticism in simple Hindi language well understood by the local population to whom it is to be applied. The following was taken as the operational definition of psychoticism: "There exists a set of correlated behaviour variables indicative of predisposition to psychotic breakdown demonstrable as a continuous variable in the normal population and independent of extraversion and neuroticism" (Eysenck and Eysenck, 1968).

MATERIAL AND METHODS

A questionnaire consisting of 122 questions, including 90 items of schizophrenia, 10 items of mania and 10 items of depression was constructed to measure psychoticism. It also included 12 items to measure social desirability. As schizophrenic patients constitute majority of the clinic population suffering from psychotic illnesses, and as

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the illness has four major subtypes thus more questions related to it were included. Criterion approach of item selection was considered more suitable at this stage.

**Source of Items** : Items were taken from various sources. Old case files were referred to get an idea about major psychotic symptoms and premorbid personality in psychotic patients. Items were written out to ascertain psychopathology also on the basis of a fairly wide reading of psychiatric literature. Items were framed on the basis of constructs representing psychotic symptomatology.

The following were considered to be the important disturbances constituting psychoticism as defined earlier.

**Desocialization** : Alienation—estrangement; apathy—insensitivity to others feeling, hurting people one loves; avoidance of people, feeling of being avoided or ignored by people; considered ‘odd’ by others—difficulty being understood, difficulty understanding others; feeling that something unspecified is wrong with self or the world; withdrawal.

**Paranoia** : Blaming others; feeling of being unlucky; disliking for encroachment upon one’s private life; ideas of reference; hidden meanings; suspiciousness, generally world viewed as hostile; fearfulness.

**Thought Disorder** : Delusion; ideas of passivity; pseudosophistic ideas; recent changes in religiosity; thought block; thought insertion.

**Depression** : Afraid one may do something wrong, may lose one’s mind, others would ‘find out’ about him; attempting suicide; disturbances of body image—vague idea of external control over him.

**Miscellaneous** : Anxiety; history of mental illness in the family; uncontrolled emotions; oversensitivity.

**Social Desirability Scale** : The items were taken from various sources like Psychoticism, Extraversion, Neuroticism (PEN) Inventory (Eysenck and Eysenck, 1968), MMPI (Hathaway and McKinley, 1967) and 16 PF questionnaire (Cattell and Ebber, 1962).

**Format of the Items** : Items were written in Hindi language. Simple words, which are commonly understood by the majority of people in the population studied were used. The items were arranged in a random order. To ensure complete randomization, all the questions were written on separate cards which were then thoroughly shuffled.

Instructions were written in the beginning of the questionnaire.

**Scoring** : Response to psychoticism questions was considered positive when answered in the affirmative. Total P-Score was sum of all positive responses for psychoticism items. For social desirability items, the responses were scored as 1 if they indicated a tendency towards social desirability. For some items it meant an affirmative response whereas for others a negative response.

Two tryouts were carried out before the final test version of the questionnaire was evolved for standardization.

**First Try-out** : Questionnaire was administered to 40 psychotics, 40 neurotics and 40 normals. Psychotic and neurotic subjects were taken from the patients seeking psychiatric consultation at the psychiatric consultation at the psychiatric clinic of the Postgraduate Institute of Medical Education and Research, Chandigarh. It may not be out of place to mention the diagnostic procedure at the psychiatric clinic. When a new case is referred, he is first examined in the Walk-in clinic, where he is seen briefly, treatment is initiated and he is given an appointment for
detailed work up. On the date of appointment, a psychiatric resident (postgraduate) works up the case in detail. Then the case is discussed with the consultant psychiatrist and a diagnosis is made. Normal subjects were taken from volunteers who appeared free from manifest abnormality during a short interview before administration of the questionnaire. Also, it was ensured that they had no family history of mental illness. By volunteer is meant one who when approached, agreed to take the questionnaire.

Both males and females, married as well as unmarried subjects in the age range of 15 years to 44 years with all educational levels and all occupational categories were accepted. It was assumed that these socio-economic categories were equitably represented in all the diagnostic groups.

Psychoticism questionnaire was individually administered to each subject. Literate subjects were asked to answer each question by ticking either 'yes' or 'no' response category, for each item. In case of illiterate subjects, items in the questionnaire were read out and according to the subject's response, examiner ticked on the response category.

Psychoticism and social desirability items were analysed separately.

Item Analysis: At this stage only item analysis was done with the objective to select appropriate items with ability to discriminate psychotics from normals and neurotic. Item endorsements of top 27% of the sample on basis of P-score were compared with those of bottom 27%, using Jurgusons' (1947) Phi-coefficient Tables. Item endorsement of psychotic group was also compared with neurotic and normal groups using phi-coefficient.

42 items were discarded at this stage, as they failed to discriminate psychotics from normals at .01 significance level. Out of these, 30 items were related to schizophrenia, 3 to depression, 7 to mania and 2 to social desirability.

By experience of administration, it was observed that some patients had difficulty in understanding words in items 70 and 87. Hence, the necessary modification in the wording was effected.

Thus, 80 items—70 measuring psychoticism and 10 social desirability—were rearranged to form revised psychoticism questionnaire. The psychoticism items were again arranged randomly. One social desirability item was kept after every seven psychoticism items to ease scoring.

Second-Try-Out: The revised psychoticism questionnaire was individually administered to 150 subjects (50 psychotics, 50 neurotics and 50 normals). Subjects were selected according to the criteria mentioned earlier.

Statistical analysis: The second try-out was subjected to more elaborate statistical analysis. Mean and standard deviation (S. D.) of psychoticism score of the three groups are shown in Table I.

| Groups      | N  | Mean | S.D. |
|-------------|----|------|------|
| Psychotics  | 50 | 33.83| 12.57|
| Neurotics   | 50 | 18.26| 8.11 |
| Normals     | 50 | 8.88 | 3.87 |

The mean psychoticism scores for normal and neurotic groups were significantly lower than that of psychotic group.

Item analysis was conducted again with the aim to reassess discriminating value of all the items. Discriminating value of each item between the three groups and for upper 27% (high P-scorers) and lower 27% (low P-scorers) of cases was calculated by phi-coefficient method. On the basis of obtained results, 10 items were

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discarded in this tryout. 6 items were deleted as they were also endorsed significantly more by neurotics than normals. 2 items could discriminate between normals and neurotics at .05 significance level but failed to discriminate between psychotics and normals/neurotics. 2 items failed to discriminate between neurotics and psychotics. The phi-coefficient correlation between each P-item and total was significant except in case of one item which gave very low and negative correlation in normals and neurotics.

It was observed that a few social desirability items that were written in negative were not easily understood by everyone. These were reframed so that an affirmative response indicated social desirability and consequently the scoring was also changed.

Reliability: Reliability was calculated using Kuder Richardson formula 20 in the psychotic group only (N=50). It was found to be .91 which is highly significant.

Validity: Criterion validity was assessed to see whether the test could screen out psychotics from neurotics and normals. ('t'-test ratios show that psychotic group had significantly higher mean than neurotic and normal groups (Table I).

With the modifications made on the basis of the second try-out, the questionnaire had 60 psychoticism items and 10 social desirability items. Social desirability items were now placed after every six psychoticism items. This was the final form of the questionnaire used in the final standardization of the questionnaire (reported separately, Arora and Varma, 1979).

DISCUSSION

The questionnaire was readily accepted by all groups of subjects. Normals and many of the neurotics found it interesting. Some of the psychotics were amazed how most of the questions tapped their symptoms. None of the persons was unduly disturbed about the type of questions.

Psychotic patients displayed sufficient understanding of the task and awareness of their behaviour. It did not appear to the examiner that any patient was answering entirely at random.

A question might arise that as many of the questionnaire items appear to be psychiatric correlates of symptoms and signs related to the illness, how this measured psychoticism in normal population. Eysenck and Eysenck's (1968) questionnaire consisting of P-scale does not contain any items related to psychotic symptoms. Verma and Eysenck (1973) have questioned its applicability on a psychotic population, as defined by psychiatric diagnosis. The present questionnaire is lengthy, as compared to Eysenck and Eysenck's P-Scale of 20 items. Thus we have included few items depicting psychotic disturbances of relatively mild severity. However, questions on florid psychotic symptoms and behaviour, uncontrolled agitation and excitement were not included. It was expected that by including these items, the questionnaire will not only give an idea of psychoticism in the general population but also help to discriminate psychotics from normals, which objective was by and large fulfilled.

While selecting the items, preference was given to those items which discriminated significantly between psychotics and neurotics/normals but did not significantly discriminate between normals and neurotics. Also, it was kept in mind that items representing important disturbances which would constitute psychoticism were well represented. Some items were selected because it was felt that an affirmative response on those may indicate a propensity to react in a reality-distorting or psychotic manner under stress, as opposed to by a neurotic defence or anxiety. Tryouts were used to tell if these items really discriminated between psychotics and others.
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