

RORSCHACH RESPONSES OF A GROUP OF ADULT ASTHMATICS

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INTRODUCTION

PERSONALITY characteristics of patients suffering from bronchial asthma have attracted considerable attention. Most clinical observations suggest that asthmatics present a characteristic difficulty in emotional expression. Reporting on the behaviour of 23 children with either asthma or eczema, Rogerson, Duguid and Hardcastle (5) state that these children were more shy than others in play therapy. Harris *et al.* (3) compared asthmatic children to children with allergic rhinitis. They suggested that half of the asthmatic group showed more difficulties than the rhinitic group in crying and confiding to the mother. These observations were made on children. On the adult side we have the inferences of French and Alexander (2) (based on psychoanalytical situations) that the asthmatic attack is the equivalent of a suppressed cry. However, as Leigh (4) has pointed out in his recent review of the psychiatric aspects of asthma, little valid evidence has in fact been presented that this feature of personality or any other is characteristic of asthmatics. This paper is a report on findings which may be related to this lack of evidence.

MATERIAL AND METHODS

Thirty adults suffering from asthmatic attacks were given the Rorschach test. They formed a highly selected group, in that all had been referred to a psychiatrist particularly concerned with the study of this disorder. However, the clinical findings differed in no way from what has been found in larger groups of asthmatics—there were roughly the same proportions of allergic or infective factors, hereditary incidence and sex distribution. Their ages ranged from 15 to 53 years, with a mean age of 31 years 10 months. They had suffered from asthmatic attacks for periods ranging from three months to forty years (approximate mean—12 years). Twenty were women, and ten men; their I.Q.s as measured on Raven's Progressive Matrices were between 84 and 129 (approximate mean I.Q. 108·7) (5 patients had not been tested for intelligence level, an assessment was made from a scrutiny of the history).

The Rorschach was given in the standard fashion, after the subjects had seen the psychiatrist for a preliminary interview. In all but two cases the test was given before treatment had begun. Fourteen were tested by the writer, and 16 by a variety of psychologists. All patients were in an asthma-free period at the time of testing.

RESULTS

The most striking feature of these records is their overall restriction and in this paper attention will be confined to the number of responses as an objective

measure of that restriction.* The average is 24 (standard deviation=12.24). Moreover this simple objective measure appears to have a certain degree of generality with regard to asthmatics. Schatia (6) concluded from her interpretation of the Rorschach records of 40 asthmatics that most of them were neurotics. In fact, what her tables showed as the most consistent feature of those records was the low number of responses (less than 30, in 38 out of 40 records). Vles en Groen (7) showed there was a significant difference in the number of responses between an asthmatic group and a healthy control group both tested on the Behn Rorschach.

COMPARISON WITH OTHER POPULATIONS

The average number of responses for our group of asthmatics is 24 and falls well below that expected on the Rorschach from an averagely intelligent population. Beck and his co-workers (1) obtained on a population of 157 Americans with similar age range a mean number of responses of 32 (standard deviation=17). The difference between the two populations was assessed by a t-test

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}} = 3.2$$

and is significant at the 0.01 level. However, the comparison with an American group was unsatisfactory, as cultural characteristics could have partly accounted for that difference. So the asthmatic group was compared with a carefully matched control group of 30 neurotic patients from a similar background. Each asthmatic patient was paired with a neurotic patient of the same sex, age and intelligence (Table I).

TABLE I

	Mean Age	Approx. Mean I.Q.
Asthmatics	31 years 10 months	108.7
Neurotics	31 years 5 months	109.5

Most of the age differences were between 1 and 5 years. Only in the upper age range was there one difference of 8 years and one of 12 years. Most of the I.Q. differences (which again had in some cases to be approximately evaluated) were between 0 and 5 points. The highest was of 8 points.

(1) *Difference between the Means*

The mean number of responses for the neurotic group was 32.1 (standard deviation=16). The distribution of differences in the number of Rorschach responses for each pair was plotted and found to be normal. The variance of differences was therefore used as a basis for the t-test, thus allowing for the use of the raw data instead of their logarithmic equivalents. The formula used was the one most appropriate for the comparison of paired correlates:

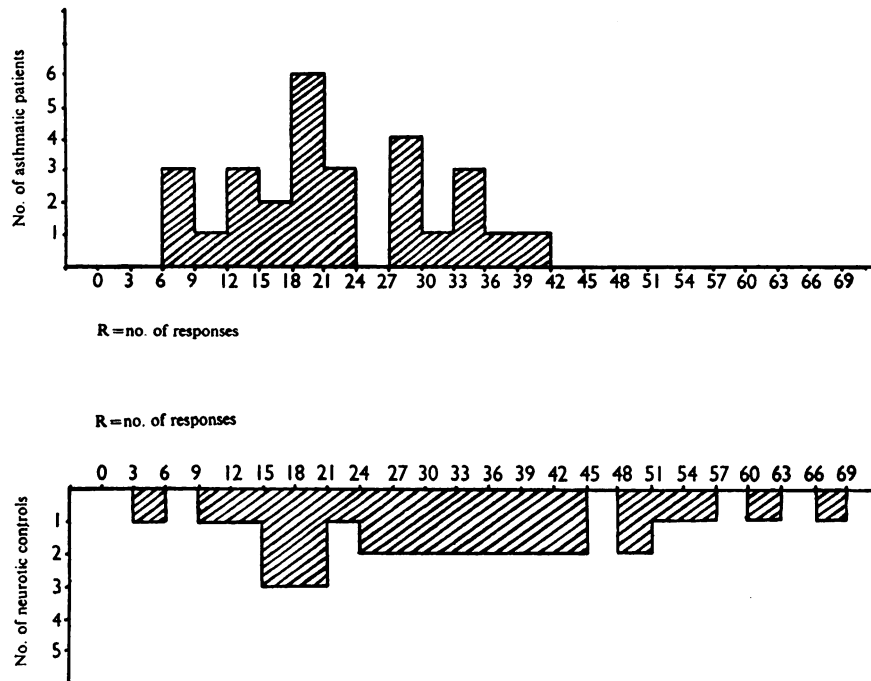
$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{\sum d^2}{n(n-1)}}} = 2.486$$

* Almost every scorable feature of any given Rorschach record is related to this one measure and it is difficult to evaluate differences in Rorschach determinants (whether these are calculated in absolute numbers or in percentages) unless the records present roughly the same number of responses.

The difference between the two groups in terms of the numbers of Rorschach responses was significant at the 0.02 level.

(2) *Distribution*

This is represented in the following graph (Fig. 1). Asthmatic subjects it may be observed are not consistently below their control neurotics in the



number of responses. However, only one of the asthmatics (3 per cent.) attained a score of 42 (half a standard deviation above the mean for the normal population), whereas 8 of the neurotics (25 per cent.) gave a higher number of responses. In other words, neurotic patients give very short as well as very long records, whereas asthmatic patients give very few long records.

(3) *Comparison between Men and Women*

When comparing the records given by men with those from women it can be seen that the differences noted in 1 and 2 almost entirely result from the very low number of responses given by the women patients suffering from asthma (Table II).

TABLE II

	Mean Responses
30 Asthmatics	24
30 Neurotics	32.1
20 F. Asthma	21.7
20 F. Neurotic	31.1
10 M. Asthma	28.5
10 M. Neurotic	30.2

In our two groups there is a higher proportion of men than women with an I.Q. above the mean (in this population the mean is 108 to 109). It was therefore advisable to compare only those asthmatics and controls with an I.Q. above the

mean. Table III shows that the difference becomes even more marked, and that intelligence plays no part in it.

TABLE III

	Mean number of Responses		Mean number of Responses
11 F. Asthma ..	23·1	8 M. Asthma ..	31·7
11 F. Neur. . . .	35·1	8 M. Neur. . . .	31·0

However, with such small groups results do not attain significance. In Vles en Groen's (7) group, of men and women, the findings are in the same direction although the differences are less striking because of the lower overall productivity of his group (Table IV).

TABLE IV

	Mean number of Responses
Control group	21
Asthma. Men	20
Asthma. Women	15

It seems to the writer that the neurotic group presented here is less varied in its number of responses than would usually be expected. Two reasons may have contributed to narrow the spread of the neurotic distribution:

- (i) All these records were of patients for whom a psychological examination had been requested by the psychiatrist. Very hostile, retarded or almost untestable neurotics would have added to the number on the low end of the curve, but would justifiably be excluded as not comparable to our very co-operative group of asthmatics;
- (ii) When matching the two groups the writer purposely rejected two neurotics who would have been adequate for criteria of age, sex and intelligence, but whose records were, respectively, of 135 and 190 responses; it was felt that they would spuriously inflate the mean.

A larger and less selected group of neurotics would probably have had a wider distribution in terms of number of responses—and because the Rorschach allows for a practically unlimited number of responses, the results would have probably been even more significant.

These findings are of interest as they are consistent with a clinical impression widely accepted among psychiatrists. The test situation can be taken as representing a comparatively standardized stressed situation which might be analogous to a life situation. Faced with it the asthmatic patient is generally restricted in his responses, and less capable of expression than normals or neurotics.

Two points must, however, at once be put forward. Firstly, no evidence is presented here to suggest that this restricted number of responses is specific to asthmatics and not, for instance, related to any chronic illness, or only apparent in those asthmatics who seek psychiatric help. The second objection is pertinent to the nature of the Rorschach. With a test of so many facets we do not know which factor in the test-situation or in the test-stimulus has affected the number of responses in that way. It would seem important to test the asthmatic reaction to simpler perceptual tasks or to other tasks involving choice or verbal communication.

SUMMARY

1. A group of adult asthmatics showed, when compared to a normal population, a significantly lower average number of responses to the Rorschach.

2. The same group, when compared with a carefully matched group of neurotics, also showed a significantly lower number of responses.

3. Only 3 per cent. of the asthmatic group as against 25 per cent. of the neurotic controls reached above a score of $R=42$.

4. These results are of interest in view of the reported clinical assumption that asthmatics are inhibited in their mode of expression.

5. The asthmatic women were more restricted than the men in their responses to the Rorschach.

Further studies should include first a confirmation of these findings by bringing in more control groups for comparison; then an investigation of the causes which lead to a restriction of responses to the Rorschach.

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