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The Self-pitying Constellation in Depression*

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I. Introduction

A revival of interest in psychiatric classification has led to the use of statistical techniques such as factor analysis to help describe the depressive population. Several recent factor analytic studies rating symptoms in depressed patients have had results which portray a common clinical pattern (Hamilton and White, 1959; Kiloh and Garside, 1963; Rosenthal and Klerman, 1966b; Rosenthal and Gudeman, 1967). In each of these studies the first or primary factor has suggested the endogenous depressive pattern. In the most recent of these papers we presented the first factor in our study of 100 depressed women (Rosenthal and Gudeman, 1967). This factor was shown to be similar to the principal factors of the other studies, and to suggest the "endogenous" or "autonomous" pattern. This replication has been an encouraging indication that studies carried out in different patient populations may indeed give reproducible symptom patterns.

Our second factor, which is independent of the first factor, also suggests a commonly seen depressive pattern. This pattern is the constellation of hypochrondriasis, self-pity, complaining and demanding behaviour, irritability and hostility, and anxiety. On further investigation we have noted that this second factor corresponds with the second factors in two of the other studies. The correspondence of the first two factors in three clinical factor analytic studies is a significant finding. The results of our investigation of the second factor are presented here.

II. Methodology

This was a factor analytic study carried out at the Massachusetts Mental Health Center, a small state hospital affiliated with the Harvard Medical School. One hundred acutely depressed female patients between 25 and 65, of whom half were in-patients and half were out-patients, were included in the study. The patients were rated on 48 clinical items which included symptoms and signs of the present illness, premorbid personality traits, and the personal and clinical history. Patients were scored on a 1–7 scale on all symptoms and signs. The rating was done primarily by the authors. Inter-rater reliability was evaluated and found to be quite high with simultaneous interviewing (Rosenthal and Gudeman, 1967).

Thirty symptoms and signs of the present illness were included in the factor analysis. The principal axis factors were extracted. The first two factors accounted for 26 per cent. of the total variance. The first factor has been discussed in our previous paper. The second factor is described here.

The patients were given "factor scores" to quantify how well each patient fitted the pattern denoted by Factor II. The factor score was calculated by multiplying the patient's clinical rating on each symptom by the loading (or relative worth) of that symptom on the factor, and then summing these products. These factor scores were used to rank the patients for their correspondence with the pattern. The factor scores also were correlated with the historical and personality data which had not been included in the factor analysis.

III. The Symptom Pattern of Factor II

There are five symptoms which load positively above +·40 on Factor II. These are *hypochondriasis, psychic anxiety, demanding and complaining behaviour, self-pity and blaming the environment*, and *somatic anxiety* (see Table I).

There are seven symptoms which load positively between +·20 and +·40. These are

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TABLE I
Factor Loadings

	Factor II	Factor I
Hypochondriasis	·63	·06
Anxiety psychic	·54	·37
Demanding and complaining behaviour	·53	−·01
Self-pity and blaming the environment	·52	−·31
Anxiety somatic	·50	·23
Hostility and irritability	·40	−·04
Fatigue	·35	·39
Weight loss	·34	·25
Insomnia, evening	·31	·26
Symptoms worse in the mornings	·29	·12
Reactivity of the depression	·26	−·67
Visceral symptoms	·20	·53
Muscular symptoms	·18	·27
Insomnia, morning	·17	·42
Loss of concentration	·14	·55
Loss of interest	·09	·51
Severity of depressed mood	·09	·53
Fluctuation	·03	·29
Agitation	·00	·53
Quality of the depression	·00	·61
Symptoms worse in the evenings	−·03	·31
Obsessive-compulsive symptoms	−·04	·41
Somatic delusions	−·06	·19
Genital symptoms (loss of libido)	−·09	·39
Insomnia, middle	−·09	·52
Paranoid symptoms	−·19	·04
Worthlessness	−·20	·61
Suicidal symptoms	−·26	·43
Guilt and self-reproach	−·34	·54
Retardation	−·35	·57

hostility and irritability, *fatigue*, *weight loss*, *evening insomnia*, *symptoms worse in the morning*, *reactivity of the depression*, and *visceral symptoms*.

The five highest loading negative symptoms are *retardation*, *guilt and self reproach*, *suicidal symptoms*, *worthlessness*, and *paranoid symptoms*.

There are 13 other symptoms with negligible loadings. It is to be noted that a negligible loading on a symptom does not imply that the symptom is absent on this factor, but that it is relatively evenly distributed in the population with respect to this factor.

IV. The Comparison with Other Studies

a. *The items loading on Factor II*

Our first factor has been shown (Rosenthal and Gudeman, 1967) to resemble the "endogenous" first factors obtained in the previous studies by Rosenthal and Klerman and by Hamilton and White. In a similar manner we have compared our second factor with the second factors derived in these two studies to see whether the similarity in the symptom patterns was borne out.

Rosenthal and Klerman retrospectively studied 50 hospitalized depressed women. Of 12 items loading positively at +·20 or more on our Factor II, ten were included in the Rosenthal-Klerman study, and nine of the ten loaded positively at +·20 to +·56 on their Factor II. Of the five items loading negatively at −·19 or more, all five loaded negatively on the Rosenthal-Klerman Factor II at −·22 to −·37.

Hamilton's study included 49 depressed male patients. As he rated fewer items, not all of our items were included in his study. Of the twelve high positive items on our Factor II, six were included in Hamilton's study and all six loaded positively at +·25 to +·67 on his Factor II. Of the five high negatively loading items, three were included in Hamilton's study and all loaded negatively at −·16 to −·37.

Taking the second factors derived in the three studies, we averaged the loadings of each of the 30 symptoms on these three second factors. When these loadings from the three studies were averaged, there were ten symptoms with average loadings of +·30 or more. These were "*demanding and complaining*", *hypochondriasis*, *self-pity*, *fatigue*, *evening insomnia*, *weight loss*, *visceral symptoms*, *reactivity of the depression*, *symptoms worse in the mornings*, and *hostility and irritability*. All ten were among the twelve highest in our study. (See Table II.)

The five items with the highest average negative loadings were *retardation*, *guilt*, *suicidal symptoms*, *worthlessness*, and *paranoid symptoms*. These were also the five symptoms with the highest negative loadings in our study.

b. *Correlations between the factor scores*

Our hundred patients were given factor scores on the second factors from the Rosenthal-Klerman and the Hamilton-White studies as well as our own. This was done by using the loadings from their second factors with our patients' own symptom ratings. The factor scores derived from our Factor II correlated

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TABLE II

Items with High Average Factor Loadings in Three Studies

	Average Factor II Loading		Average Factor I Loading
Demanding and complaining	+·53*	Severity of sad affect	+·65
Hypochondriasis	+·52	Quality of the depression	+·61*
Self-pity and blaming the environment	+·46	Retardation	+·60
Fatigue	+·41	Guilt and self-reproach	+·59
Evening insomnia	+·40	Middle insomnia	+·50
Weight loss	+·38	Worthlessness	+·48
Visceral symptoms	+·36	Loss of interest	+·46
Reactivity of the depression	+·34	Morning insomnia	+·45
Symptoms worse in the morning	+·32	Loss of libido	+·43
Hostility and irritability	+·30	Visceral symptoms	+·42
		Loss of concentration	+·40
		Weight loss	+·35
		Suicidal symptoms	+·35
		Obsessive-compulsive symptoms	+·34
		Agitation	+·31
Retardation	−·31	Reactivity of the depression	−·46
Guild and self-reproach	−·29	Self-pity and blaming the environment	−·26
Suicidal symptoms	−·28		
Worthlessness	−·25		
Paranoid symptoms	−·23		

* Item was included only in this study

+·78 with those derived from the Rosenthal-Klerman Factor II, and +·54 with those derived from Hamilton's Factor II. The Spearman Rank Order Correlation Coefficient was used. This means that ranking our patients by the three scoring systems gave substantially similar patient ratings.

V. Correlations with Independent Data

The Factor II patient factor scores correlated positively with the presence of apparent precipitants prior to the onset of symptoms (+·31) ($P<·01$) and negatively with a history of previous episodes requiring hospitalization (−·21) ($P<·05$). Correlation with other historical items including age, total number of depressive episodes, menopausal status, and family history of depression were negligible.

The factor scores correlated positively with anxious-neurasthenic personality traits (+·39) ($P<·01$) and negatively with schizoid personality traits (−·23) ($P<·05$). Other personality traits, including oral, obsessive, hysterical, depressive, and reactive, correlated positively but not significantly (+·12 to +·16). The global personality adjustment rating correlated negligibly at +·04.

The global rating of severity of illness also correlated negligibly at +·04 with the factor scores.

VI. Discussion

1. *The Patterns*

This was a factor analytic study of 100 in-patient and out-patient depressed females. It was observed that both the first and second factors resembled recognizable clinical patterns of depression, and that these approximately replicated the first and second factors of two previous factor analytic studies, those of Hamilton and White and of Rosenthal and Klerman.

The factor scores derived from our first two factors were found to correlate with those derived from the Rosenthal-Klerman factors at +·90 for Factor I and +·78 for Factor II. The factor scores were found to correlate with

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the factor scores derived from the Hamilton factors at +·78 for Factor I and +·54 for Factor II (all significant at $P<\cdot01$).

The symptoms with high average factor loadings for the three studies can be seen in Table II. The pattern denoted by Factor I resembles the autonomous or endogenous picture. It has prominent self-derogatory symptoms with feelings of guilt and self-reproach, worthlessness, and suicidal symptoms, as well as such symptoms as severity of sad affect, psychomotor retardation and agitation, middle and morning insomnia, weight loss, visceral and genital symptoms, inability to concentrate, and an ego-alien quality of the illness. Reactivity to the environment and self-pity were relatively absent.

On the other hand, the pattern denoted by the second factor is distinguished by symptoms which reproach the environment rather than the self. Interaction with the environment, both reacting to it and making manifest attempts to influence it, are seen. Among the symptoms with high average loadings are hypochondriasis (defined as an attempt to involve other people in sympathy, pity, or care by use of symptoms), self-pity and blaming the environment, demanding and complaining behaviour, reactivity to the environment, and hostility and irritability, Other more non-specific symptoms include subjective fatigue, evening insomnia, weight loss, visceral symptoms and diurnal variation. On the other hand, the symptoms which loaded negatively and tended to be absent were retardation, paranoid symptoms, suicidal symptoms, and the self-derogatory symptoms guilt and worthlessness.

In interpreting the symptom-pattern suggested by a factor, it should be emphasized that the symptoms which tend to be absent are those with high negative loadings. Symptoms with negligible loadings, on the other hand, are seen in the same average frequency in the pattern as in the overall population studied. Items with high positive loadings tend to be especially prominent and characteristic in the pattern. Thus it is observed that there is a symptom overlap between the two patterns described above, with some symptoms such as "weight loss" and "visceral symptoms" being prominent in both, other symptoms such as "anxiety" being of average intensity in both, and some symptoms such as "loss of interest" and "severe sad affect" more prominent in one pattern than the other. The best distinguishing characteristics, however, are those which are prominent (positively loaded) in one pattern and relatively absent (negatively loaded) on the other, such as "psychomotor retardation" on the one hand, as "self-pity" on the other. The large symptom overlap is in part an indication of the difficulty encountered when trying to place the large number of patients with mixed pictures into either of these pure categories.

We find it interesting that Gillespie's descriptions in 1929 of autonomous and reactive expression were so similar to those which have been derived from these factor analytic studies. In both his autonomous and reactive groups he found weight loss, insomnia, diurnal variation, many physical symptoms, depressive mood, and the presence of psychological precipitants. Specific to his "reactive" group, he found responsiveness to the environment, blaming of the environment rather than the self, more of a feeling of effort and fatigue, a greater degree of preoccupation with health (especially mental health), and more anxiety. Specific to his "autonomous" group, he found self-accusation and guilt, feelings of worthlessness, a slowing of thought and activity (psychomotor retardation), more suicidal tendency, less responsiveness to the environment, and an ego-alien quality of the depression.

2. *The Significance*

The replication of first and second factors in three factor analytic studies is notable, and supports the clinical impression that the patterns that they represent are commonly seen in depression. Some writers have attempted to divide the entire depressive population into these two patterns (Gillespie, 1929; Kiloh and Garside, 1963), while others have seen these patterns as falling along a severity continuum (Ewalt and Farnsworth, 1963; Noyes and Kolb, 1963), and still others (including the authors) consider them to be simply two clinical reaction patterns of depression. The marked correspondence between Gillespie's findings and the

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results from three factor-analytic studies described above points out that these clinical patterns have long been observed, although we disagree with Gillespie's interpretations of them as representing a clear division of the patient population.

We feel that our results do not imply a division of the depressive population into two mutually exclusive patient groups which together encompass the entire depressive population. A patient's high factor score on one factor does not necessarily imply a low factor score on the other, and patients may exhibit blends of the two patterns. In our study, the patient distribution on each of the factors is essentially normal, and only the top 10–20 per cent. of patients along each distribution curve have clinical pictures recognizably typical for the pattern. We feel therefore, that these factors describe patterns of reaction rather than patient groups.

Evidence is accumulating that the degree to which these patterns are present in individual patients may be useful in the selection of more homogeneous patient groups for psychoendocrine and psychobiological studies, and in the prediction of responses to therapy (Rosenblatt and Chanley, 1965; Kuhn, 1958; Kiloh, Ball, and Garside, 1962).

VII. Summary

A factor-analytic study of 100 depressed women produced first and second factors which suggest clinically seen depressive patterns; the autonomous (or endogenous) pattern, and the self-pitying pattern. These factors are shown to approximately replicate the first and second factors of two previous factor analytic studies. The interpretation of these results is discussed. It is felt that these factors represent common clinical pictures rather than clear-cut patient groups.

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