SUPER-EGO AND AGGRESSION IN CIRCUMSCRIBED
NEURODERMATITIS*

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The purpose of the present investigation was to test the hypotheses that patients with circumscribed neurodermatitis (1) have strict and punitive Super-egoes, and (2) tend to express aggressiveness masochistically.

These hypotheses concerning the psychology of patients who excoriate the skin excessively have been proposed by numerous investigators, including Stokes (1), Greenhill and Finesinger (2), Miller (3, 4), Obermayer (5, 6), Cormia (7, 8), Walsh and Kierland (9, 10), Wright (11, 12), Wittkower (13, 14), Hubler (15), Sneddon (16), Williams (17), Zaidens (18, 19), Kepecs et al. (20, 21), Levy (22), and Seitz (23, 24, 25). The findings of these investigators have suggested the following psychodynamic formulation of psychocutaneous excoriation syndromes:

Frustrating life experiences (especially frustration of needs to be loved and cared for) → hostile feelings and aggressive retaliatory impulses which conflict with moral demands of the Super-ego (conscience) → guilt ("it is wicked to have such angry feelings and murderous impulses toward another person") → repression of the hostile-aggressive feelings and impulses → subsequent discharge of the hostile-aggressive feelings and impulses against the self in a self-punitve but erotically gratifying way (masochism) → excoriation, scratching, picking, rubbing, pinching, squeezing, etc.

According to this formulation, the symptom of excessive excoriation of the skin serves several psychophysiological functions: 1) it discharges the physiological tension associated with dammed-up hostile-aggressive feelings and impulses through rhythmical and repetitive muscular activity (scratching, rubbing, etc); 2) it avoids direct expression of these guilt-laden feelings and impulses by substituting a much less overtly hostile-aggressive kind of behavior; 3) it atones for guilt by self-inflicted cutaneous mutilation; 4) it provides neurotic compensation in the form of masochistic gratification ("the enjoyment of suffering") through cutaneous erotic masturbatory pleasure.

The present investigation was designed to test two aspects of this formulation in a quantitative and controlled way: viz., the hypotheses that patients who excoriate the skin excessively tend to have strict, punitive Super-egoes, and also tend to turn hostile-aggressive feelings and impulses back against themselves instead of expressing them openly or in other ways.

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METHOD

The experimental group consisted of 35 patients with circumscribed neurodermatitis who were treated dermatologically by one of us (J. S. G.) in his private practice and in an army general hospital. The criteria for selection were the presence of this disease, willingness to cooperate in the investigation and ability to comprehend the psychological test which was used.

The control group consisted of 29 patients with pruritic but presumably non-psychogenic dermatologic diseases, who were selected from the same sources as the experimental group. These cases were selected to match roughly the patients in the experimental group with respect to age, sex, race, duration and seriousness of the dermatologic disorders.

The Rosenzweig Picture-Frustration Test (26) was used to determine quantitatively the degree of punitiveness of the Super-ego and the degree of masochistic expression of aggressiveness. The subject is presented with 24 standard cartoon-like picture situations in which a person in experiencing various kinds of everyday frustrations at the hands of other people. The subject writes in what he imagines the frustrated person might say in such situations. According to the theory of projective tests, the subject tends to express his own conscious or unconscious attitudes, feelings and impulses in what he attributes to the cartoon characters.

Each patient in both the experimental and control groups was given the Picture-Frustration Test individually by one of us (J. S. G.); and the records were scored blindly, without knowledge of dermatologic diagnosis, by the other two investigators (P. F. D. S. and J. C.).

Responses on the test are classified according to direction of aggression as extrapunitive, intropunitive and impunitive. These categories have the following meaning: extrapunitive refers to overtly expressed aggressiveness; intropunitive refers to aggressiveness expressed against the self; impunitive refers to no aggressiveness expressed one way or the other.

<table>
<thead>
<tr>
<th>TYPE OF SUPER-EGO SCORE</th>
<th>GROUP</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrapunitive Super-ego</td>
<td>Neurodermatitis</td>
<td>6.4</td>
<td>4.500</td>
<td>0.6285</td>
<td>&gt;.05</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>7.0</td>
<td>3.594</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intropunitive Super-ego</td>
<td>Neurodermatitis</td>
<td>7.5</td>
<td>4.812</td>
<td>2.2877</td>
<td>&lt;.01</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.9</td>
<td>3.976</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extrapunitive plus intropunitive Super-ego</td>
<td>Neurodermatitis</td>
<td>13.9</td>
<td>5.619</td>
<td>1.4616</td>
<td>&gt;.05</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>11.9</td>
<td>5.034</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Each patient was given a score, expressed as a percentage, for the number of extrapunitive, intropunitive and impunitive responses. An assumption was made that the higher the intropunitive score, the more masochistic was the subject.

To obtain a quantitative measurement of Super-ego intensity and punitive-ness, a scoring category of the test—called "Super-ego Patterns" by Rosenzweig—was used. This scoring category is calculated from certain specific responses on the test which Rosenzweig has found are in the nature of Super-ego responses. Each patient was given a score, expressed as a percentage, for the number of such Super-ego responses. An assumption was made that the higher this score, the more intense and punitive was the subject's Super-ego.

Statistical analysis of the data was carried out by means of Student's t test. Since both of the hypotheses were one-ended, probabilities obtained from the tables of t were halved, according to the method reported by Jones (27).

<table>
<thead>
<tr>
<th>DIRECTION OF AGGRESSION</th>
<th>GROUP</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrapunitive</td>
<td>Neurodermatitis</td>
<td>42.6</td>
<td>15.954</td>
<td>0.2700</td>
<td>&gt;.05</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>41.4</td>
<td>17.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intropunitive</td>
<td>Neurodermatitis</td>
<td>28.6</td>
<td>7.229</td>
<td>0.5794</td>
<td>&gt;.05</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>27.4</td>
<td>9.066</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impunitive</td>
<td>Neurodermatitis</td>
<td>28.8</td>
<td>12.673</td>
<td>0.7099</td>
<td>&gt;.05</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>31.1</td>
<td>12.973</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RESULTS

The raw data from this investigation will not be presented in this report. Tabular summaries of the statistical findings will be presented. Table I presents the statistical summaries of results pertaining to Super-ego scores. The only significant difference is found in the category of intropunitive Super-ego responses. The neurodermatitis group had a significantly higher proportion of such responses than the control group. This finding supports the first hypothesis that neurodermatitis patients have strict, punitive Super-egoes. Since only the intropunitive Super-ego scores were significantly higher in the neurodermatitis cases, this finding also supports the second hypothesis that such patients tend to express aggressiveness masochistically.

Table II presents the statistical summaries of results pertaining to direction of aggression. In this method of comparing the two groups statistically, all responses on the tests—not merely the Super-ego responses—were classified as extrapunitive, intropunitive and impunitive. Using this method of comparison,
no significant differences were found between the experimental and control groups. This finding fails to support the second hypothesis that neurodermatitis patients tend to express aggressiveness masochistically.

Statistical comparisons of the two groups were also made with respect to Rosenzweig scoring categories called "General Conformity Rating" and "Reaction Types." No significant differences were found.

**DISCUSSION**

The results of this investigation support the hypothesis that patients with circumscribed neurodermatitis have strict, punitive Super-egoes. The results with respect to the second hypothesis—that neurodermatitis patients tend to express aggressiveness masochistically—are partially supportive and partially non-supportive. If only the Super-ego responses are considered, the neurodermatitis patients have a significantly higher intropunitive (masochistic) score than the control groups. If all responses are classified according to direction of aggression, the differences between the two groups are not statistically significant. Several possible explanations may be proposed to account for the latter finding:

1) The scoring categories of this test which are used in classifying responses according to direction of aggression may not be reliable indicators of this phenomenon. The non-specificity of the frustrating situations may tend to dilute the differences between individuals or groups. The authors suspect that if these situations were consistently associated with frustrations of being loved and cared for, the neurodermatitis and control groups might then be distinguished in terms of direction of aggression. This is a testable hypothesis, which would involve making up a new set of cartoons in which the frustrating situations were more or less consistently concerned with the theme of dependency, being loved and cared for.

2) It may be that in their everyday lives, neurodermatitis patients express just as much overt hostile-aggressiveness as average persons; but that, unlike average persons, the neurodermatitis patients react more guiltily to these feelings and impulses in themselves.

3) The possibility must be considered that the second hypothesis is invalid. This seems doubtful in view of the support it received in the Super-ego categories.

**SUMMARY**

The purpose of this investigation was to test the hypotheses that patients with circumscribed neurodermatitis 1) have strict, punitive Super-egoes, and 2) tend to express aggressiveness masochistically. Thirty-five patients with circumscribed neurodermatitis and a control group of 29 patients with presumably non-psychogenic dermatologic diseases were given the Rosenzweig Picture-Frustration Test. Quantitative scores for intensity of Super-ego and degree of masochism were determined by blind scoring of the tests. The results supported the hypothesis that patients with circumscribed neurodermatitis
have punitive Super-egoes and partially supported the hypothesis that these patients tend to express aggressiveness masochistically.

REFERENCES

DISCUSSION

DR. ADOLPH ROSTENBECK, JR., Chicago, Ill.: Dr. Peck asked me what I know about psychiatry. I know nothing about it, but I do know that any psychiatric investigation is subject to the laws that govern all scientific experimentation, namely, the study and control groups must be appropriate. I am afraid the essayists weighted the experiment in their own favor in the study group because the patients with lichen simplex chronicus were weeded out according to their ability to cooperate and their ability to understand the test problems, which means that a highly selected group of lichen simplex chronicus was chosen. Therefore, any conclusions drawn from this study may be valid for the group investigated but I am not certain that they will generally hold for lichen simplex chronicus.

DR. MARION B. SULZBERGER, New York, N. Y.: This is in response to a general request that I say something; also I think my strict punitive super-ego would not permit me to remain seated.

First, I would like to say that I know Dr. Seitz and his work and I admire them both greatly. He presented his material in a very scientific and restrained fashion. I cannot discuss this paper in general because of my ignorance of the method used. I do not know the background of the method. From this methodological point of view I would like to ask Dr. Seitz whether it is very certain that results based on these very amusing pictures have been established on a large enough material to be valid.

I would also like to ask Dr. Seitz to tell us what they selected for their equivalent control cases. I would be hard pressed to find patients with enough persistent itching for the same length of time and of the same quality and character as lichen chronicus disseminatus or circumscriptus to use as controls without selecting among that group many entities which are considered by many "psychosomatists" to be some similar type or psychosomatic manifestation. In other words, I cannot see how one can find scabies or chronic hives or other itching dermatoses equivalent in their duration and type of pruritus to the itching of a severe long-lasting, so-called "neurodermatitis." And Dr. Seitz' whole thesis rests on the difference between this control group and circumscribed lichen simplex.

Perhaps an account of just one of a rather large series of similar cases may prove instructive. A few years ago, we had a young woman patient with a very severe atopic dermatitis which had incapacitated her for almost 20 years. When I came into her hospital room in the morning I would often find her face, arms, etc. covered with bloody crusts and her bed-sheets flecked with blood-stains. On asking her whether she had itched during the night I invariably received an answer about as follows: "No. I don't itch. I tear and scratch at my skin because I feel guilty and want to punish myself for wanting to murder my mother". This was a patient who had been what I call "psychiatrized". It took us about a month—first to persuade her that she really itched, really scratched because
she itched—and then to set about relieving her itching—in all of which we were in this case eminently successful.

I recount this case-history because it illustrates how patients' psychic reactions become influenced by what they have been taught concerning the nature of their disease. Perhaps Dr. Seitz' cases of lichen simplex chronicus may have been influenced by what they heard about their disease and that might have some bearing on their attitude toward disease, toward life and toward the psychometric tests.

DR. PHILIP F. D. SEITZ, Indianapolis, Ind. (in closing): Concerning Dr. Rostenberg's comments, the same criticism he made could be leveled against the samples used in any experimental investigation employing control groups. So long as we do experiments of this type in which samples of populations are employed, all we can do is state the factors involved in selection, because it is possible that the factors of selection may influence the outcome of the experiment. We did make an attempt to have the two groups as similar as possible.

Concerning Dr. Sulzberger's comments, the Rosenzweig Picture-Frustration Test is a moderately well standardized psychologic projective test, but some recent evidence indicates that the method is not adequate for quantitative determination of the direction of aggression. That may be the reason that when all responses were analyzed, no significant differences were obtained in this investigation. With regard to his comments about the control group, we had the same difficulty he anticipated: namely, finding patients who could be roughly matched with the experimental groups in terms of the presence of pruritus approximating the same duration and severity. We did the best we could. We were not entirely satisfied with what we were able to put together as a control group. The patients in the control group were made up mainly of those having pruritic contact dermatitides.