Psychological Compensation in the Individual with a Life-Threatening Illness

A Study of Adolescents with Cystic Fibrosis

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SUMMARY

A sample of adolescents with cystic fibrosis was compared with a matched control group in a number of psychological dimensions. It was found that there were no significant differences between the groups in the aspects measured, and the reasons for this were explored.


In recent years there have been a number of studies on the psychological effects of life-threatening illness on the patient. Most of this work has focused on the seriously ill patient in the acute phase of illness, but some studies have examined the reactions of patients with a more chronically life-threatening illness such as cystic fibrosis. The initial assumption underlying both sets of studies was that the seriously ill patient would also become psychologically dysfunctional. This assumption has subsequently been questioned and many studies have concluded that not only is this not so, but that the patient may develop 'mastery' skills and coping mechanisms to deal with the added strain of his illness. These studies have indicated that it is very often the families of patients, rather than the patients themselves, that need emotional support.

The aim of the present study was to reinvestigate this area of psychological functioning in patients with a chronic life-threatening illness such as cystic fibrosis. There was no reason to suspect that a local sample would yield results which differed from those of other workers. It was felt, however, that it would be worthwhile to re-examine the problem in a local context, given that there is still some controversy about the psychological functioning of the seriously ill individual.

SUBJECTS AND METHODS

A group of 10 adolescents (12-16 years of age) suffering from cystic fibrosis was compared with a normal group. All the adolescents with cystic fibrosis were aware of the diagnosis of their illness and its prognostic implications. They were contacted through the National Cystic Fibrosis Association in Johannesburg and Cape Town. The normal group was drawn from three Johannesburg schools, Jeppe High School for Boys, Jeppe High School for Girls and Linden Hoërskool, and was matched with the cystic fibrosis group in terms of age, sex, religious denominations and home language.

The cystic fibrosis and normal groups were compared with one another in the following dimensions: (i) the extent to which individuals perceived themselves as having control over their lives; (ii) adequacy of peer relationships; (iii) relationships with parents; (iv) fears about death; (v) fears about illness; (vi) depression; and (vii) feelings of persecution.
TABLE I. MEAN SCORES FOR THE LOC SCALE AND THE CALCULATED ONE-TAILED t STATISTICS FOR EACH SCORE

<table>
<thead>
<tr>
<th></th>
<th>Overall LOC</th>
<th>Helplessness</th>
<th>Achievement</th>
<th>Luck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>13.0</td>
<td>2.7</td>
<td>1.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Control group</td>
<td>10.5</td>
<td>1.5</td>
<td>0.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Calculated t statistic</td>
<td>1.06</td>
<td>1.57</td>
<td>1.59</td>
<td>1.11</td>
</tr>
</tbody>
</table>

* df = 18.

TABLE II. MEAN SCORES FOR EACH OF THE FACTORS OBTAINED FROM THE 'OBJECTIVE' SCORING OF THE TAT AND THE CALCULATED ONE-TAILED t STATISTIC FOR EACH SCORE

<table>
<thead>
<tr>
<th></th>
<th>Experimental group</th>
<th>Control group</th>
<th>Calculated t statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental relationships</td>
<td>2.8</td>
<td>3.3</td>
<td>1,116</td>
</tr>
<tr>
<td>Depression</td>
<td>3.7</td>
<td>3.8</td>
<td>1,102</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>2.7</td>
<td>2.3</td>
<td>1,328</td>
</tr>
<tr>
<td>Fears about illness</td>
<td>3.0</td>
<td>3.0</td>
<td>0.000</td>
</tr>
<tr>
<td>Persecution</td>
<td>3.4</td>
<td>1.8</td>
<td>4,381 t</td>
</tr>
<tr>
<td>Fears about death</td>
<td>4.0</td>
<td>2.6</td>
<td>1,929</td>
</tr>
</tbody>
</table>

* df = 18.
† Significant at P ≤ 0.05.

Research Instruments

In order to assess the degree of control the individuals felt that they had over their lives, the Norwicki-Strickland Locus of Control (LOC) test was used. A high score in this test reflects a belief that life and its rewards are dictated by events outside the individual's control. A low score reflects a belief that to some extent one is master of one's own fate and that reward is contingent on one's own behaviour.

Peer relationships, family relationships, anxiety about death and the future, depression, and feelings of persecution were assessed through a structured clinical interview and the Thematic Aptitude Test (TAT), a well-known projective personality test. Both the interview and the TAT were scored by raters who did not know whether the person being interviewed had cystic fibrosis or was a normal adolescent. Full details about the TAT cards and the scoring system used are presented in an earlier study.*

The data obtained from all these tests were examined statistically to assess whether the group with cystic fibrosis differed significantly from the normal group. The specific statistical tests used were one-tailed t tests.

RESULTS

The t values obtained are presented in Tables I and II. Values were considered significant if their probability was less than 0.05.

DISCUSSION

As can be seen from the Tables, the results were overwhelmingly in favour of there being no significant differences between normal adolescents and those with cystic fibrosis. The only difference found was in the dimension of persecution. In all other aspects measured the two groups were shown to be similar. This study therefore supports the view that the patient with a chronic life-threatening illness is not necessarily psychologically dysfunctional, and confirms the findings of other writers in the field.†

What is needed now is research into the specific process whereby these patients develop coping mechanisms. Stella Chess* has suggested the concept of 'mastery' — she stresses the importance of teaching the individual the nature of his physical handicap, its manifestations, and effective ways of dealing with it. In this way the individual learns what he can do without help and when he may legitimately call for help. However, there are mechanisms other than mastery which facilitate the development of coping mechanisms, which is why it is our opinion that more intensive research in this area would be of value. Such research would not only provide more specific guidelines for the treatment of the seriously ill, but could also throw light on the process involved in the development of coping mechanisms in the normal individual. The need for such knowledge is clear when one considers how many individuals fail to develop coping mechanisms, as reflected by the high number of people who seek treatment for emotional problems.

CONCLUSION

The results of this study confirmed those of other writers, viz. that individuals with serious life-threatening illness do not differ significantly from those of normal health in various areas of psychological functioning. We suggest that in view of this what is needed now is more refined research into the area.

REFERENCES