TEMPERAMENT CHARACTERISTICS OF CHILDREN WITH CONDUCT AND CONVERSION DISORDERS

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SUMMARY

In a comparative study of temperament profiles of groups of 30 children each diagnosed as conduct disorders, conversion disorder, emotional disorders (according to DSM-III) and normal control, it was found that the children diagnosed as conduct disorders showed high activity and intensity of emotional response as well as negative mood, those diagnosed as conversion disorder exhibited low distractibility. The significance of various temperament variables in differing clinical outcomes is discussed.

In recent years considerable interest has been generated into the study of temperament of children and its relationship with behaviour and adjustment problems in them. Review of literature on the relationship between temperament and psychopathology reveals that the form of symptoms may also be significantly related to the temperament. Thomas and Chess (1977) in their series of clinical cases reported that “difficult child” temperament was related to loud protest and oppositional, negativistic behaviour, whereas, low intensity child whined and fussed. Carey (1974) found positive correlation between night waking and low sensory threshold; Stevenson Hinde and Simpson (1982) reported that timid child had more acute illnesses, worries and fears.

In an exploratory factor analytic study of temperament and its relationship with the phenomenology of childhood psychiatric disorders, it was found that the syndromes of Conduct Disorder, Somatization Disorder and Low Intelligence with Behaviour Problems were significantly related to the temperament characteristics of high energy (high activity & intensity), low distractibility and persistently negative Emotionality respectively (Malhotra, et al., 1986). There have been some studies of temperament and conduct disorders (Berger, 1982; Kolvin et al., 1982; Olweus, 1980; Patterson et al., 1967), which indicate that temperamental traits of high activity and intensity of reaction with low threshold of responsiveness were the temperamental precursors of nondelinquent conduct disorders.

It was an unexpected finding in our earlier study (Malhotra et al., 1986) that the factor of Somatization Disorder which included items like physical symptoms without medical cause, attention seeking, dependant, abnormal movements, clinging etc., was related to low distractibility which prompted us to examine this relationship more carefully. The question that arose in our mind was whether temperament precursors of specific clinical psychiatric syndromes differed from each other. This work was carried out with the aim to study the temperament characteristics of children with conduct disorders and conversion disorders and compare them with those diagnosed as having emotional disorders of childhood.

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Material and Methods

The sample was taken from children attending the Child Guidance Clinic of the Department of Psychiatry at the Post-Graduate Institute of Medical Education and Research, Chandigarh. Children were assessed clinically in detail and discussed with a consultant for diagnosis and management plan. 30 children each in the diagnostic categories of conduct disorders, conversion disorders and emotional disorders (other than somatoform disorders) according to DSM III were taken. A group of 30 psychiatrically normal children screened through the Reporting Questionnaire for Children (Giel et al., 1981), who attended the Pediatrics outpatients department for minor physical ailments was also taken. The subjects were group matched for variables of age (5—50 years), rural-urban status and maternal education. Temperament Schedule (Malhotra, 1984) was administered to the mothers of all children to obtain information about the temperament of the child before the onset of psychiatric symptoms in the study samples or when the child has been his/her most usual self in the normal group. Information was obtained about nine temperament variables described by Thomas and Chess (1977) and converted into five factor scores namely Sociability, Emotionality, Energy, Attentivity and Rhythmicity. Details of factor analysis are described elsewhere (Malhotra, 1984). Brief description of the factors is as follows:

1. Sociability: It comprises of approach-withdrawal, adaptability and threshold of responsiveness. Scores on these three variables are added to arrive at the factor score for Sociability. High score indicates easy approach and adaptability.

2. Emotionality: This factor comprises of mood and persistence variables of Thomas and Chess (1977). High score means that the mood is persistently positive and low score indicates a generally negative, unhappy mood.

3. Energy: This factor is constituted by activity and intensity and has been termed Energy. High score means highly active child with intense emotional reactions and vice versa.

4. Attentivity: This factor comprises of only one variable which is distractibility. High score indicates high/easy distractibility and vice-versa.

5. Rhythmicity: This factor has been retained as such. High scorers are more regular and low scorers are irregular in their biological functions.

Means and standard deviations the five temperament factors were computed for each group and compared using student’s “t” test.

Results

Male : female numbers were almost equal in the emotionally disturbed (13 : 17), conversion disorders (14 : 16) and the normal control (16 : 14) groups of subjects. There were significant sex differences in the diagnostic group of conduct disorders where there was preponderence of males (24 : 4).

This table shows temperament scores in the three diagnostic categories i.e. conduct disorders, conversion disorder and emotional disorders and their comparison with the group of normal subjects. There were no inter-group differences between the scores on the temperament variables of Sociability and Rhythmicity. However, the groups differed on the other three variables.

Scores on Emotionality were lower in the conduct disorders and emotional disorder groups as compared to those in the conversion disorders and normal controls. Emotionality score in conversion disorder not differ significantly from normal control group but was significantly higher than that in the conduct disorder group.
Table: Temperament Scores in Various Diagnostic Groups

|                      | Normal Control (NC) | Conversion Disorder (CvD) | Emotional Dist. (ED) | Conduct Disorders (CD) |
|----------------------|---------------------|--------------------------|----------------------|------------------------|
| (N=30)               | (N=30)              | (N=30)                   | (N=30)               |                        |
| Mean                 | Mean                | Mean                     | Mean                 |                         |
|                     | Mean                | S.D.                     | Mean                 | S.D.                   |
| Sociability         | 11.88               | 2.33                     | 12.68                | 1.86                   | 11.65                  | 2.27                  | 11.74                  | 2.25                   |
| Emotionality        | 6.46                | 1.27                     | 6.20                 | 1.23                   | 5.62                   | 1.22                  | 5.26                   | 1.03                   |
| Energy              | 6.60                | 1.13                     | 6.72                 | 1.05                   | 6.70                   | 1.23                  | 7.62                   | 1.37                   |
| Attentivity         | 3.28                | 0.68                     | 2.75                 | 0.70                   | 3.40                   | 0.89                  | 3.35                   | 0.74                   |
| Rhythmicity         | 3.88                | 0.69                     | 3.89                 | 0.68                   | 4.03                   | 0.81                  | 3.77                   | 0.73                   |

'f' ratios

|                      | Emotionality     | Energy            | Attentivity     |
|----------------------|------------------|-------------------|-----------------|
|                      | NC & ED 2.61 p<.05| NC & ED 2.97 p<.01| NC & ED 2.35 p<.01|
|                      | NC & CD 3.96 p<.01| CvD & CD 2.86 p<.01| CvD & ED 3.15 p<.01|
|                      | CvD & CD 3.17 p<.01| ED & CD 2.74 p<.01| CvD & CD 3.24 p<.01|

Score on Energy was uniformly higher for conduct disorder as compared to all other groups which did not differ among themselves on this variable.

Attentivity score was lower in the conversion disorder group as compared to the emotional disorder and conduct disorder groups. Normal control group scored significantly lower than the emotional disorder group on this variable.

Discussion:

The existence of positive relationship between certain temperament characteristics described as 'difficult-child' pattern by Thomas and Chess (1977) and later development of behaviour/emotional problems has been demonstrated in many studies (Bates, 1980; Carey, 1982; Dunn, 1980; Huttunen and Nyman, 1982; Rutter, 1982; Thomas et al., 1982; Wilson and Matheny, 1983; Wilson, 1982).

There has been little research on the temperamental correlates of specific psychiatric disorders of childhood. Conduct disorder has been found to be related to the temperament characteristics in the form of high activity, high intensity, and energy (Patterson et al., 1967; Wolff, 1971; Olweus, 1980; Klevin et al., 1982; Berger, 1982; Malhotra et al., 1986). In the present study, conduct disordered children showed a temperament profile of high energy i.e. high activity and intensity of reactions as compared to all other groups; and persistently negative mood; as compared to conversion reaction and normal control groups.

This finding of an association between high activity and intensity of temperament and conduct disorder is in agreement with the findings of other studies reported. Does this association reflect a quantitative extension of temperament into conduct disorder or does high energy represent a specific problem for parents to cope with manifesting as disorder can not be answered fully. Moreover, high intensity & persistently negative mood are among the several temperamental characteristics considered 'difficult' by Thomas and Chess (1977). High activity was not reported as a risk factor by them.
No such relationship between conversion disorder and low distractibility as found in this study has been reported so far.

According to Rothbart (1986) distractibility dimension overlaps with soothability i.e. the recovery parameter of distress which can be illustrated by careful examination of some of the items measuring distractibility in the Parent Temperament Questionnaire (Thomas and Chess, 1977) i.e. “if my child is in a bad mood, he/she can easily be joked out of it”; “My child can be stopped from pestering if he/she is given something else to do”; “When my child becomes angry about something it is difficult to sidetrack him/her”. Since a similar concept of distractibility was used in the temperament schedule used in the present study, this observation by Rothbart (1986) seems quite significant and may be relevant in the context of this study also. Thus, low distractibility in conversion disorder, as observed in this study, may mean actually low soothability i.e. such children, temperamentally, take longer to come out of a distressed state. In other words, they remain in distress for relatively longer periods in the face of day-to-day distress. Positive and early attempts at soothing the child, might help in preventing the conversion of distress into somatic symptoms which in itself is an attention seeking device.

Temperament scores on all other variables in conversion disorder were not different from that in normal group. The group with emotional disorders showed significantly more negative mood (low score on Emotionality) as compared to normal and conversion disorder groups which was less negative (though not significantly), as compared to conduct disorder group.

The overall findings revealed that temperament profile of conduct disorder children was most deviant i.e. highest in Energy and lowest in Emotionality; for emotional disorders it was less deviant than conduct disorder, and in conversion disorder it was closest to the normal group profile.

It is known that conduct disorder is more severe disorder in terms of social and family pathology, course and outcome, as compared to other diagnostic groups taken in this study. Deviant temperament appears to be an other dimension to be taken into consideration in the etiology of conduct disorders.

Similarly, temperament in the form of negative emotionality for emotional disorders and low distractibility/soothability for conversion disorder, might have significant etiological influence in these diagnostic categories, that needs to receive some attention.

In conclusion, it appears that, there may be some link between the particular temperament style and some of the clinical diagnostic entities seen in childhood. The nature of relationship between temperament and specific childhood psychiatric disorders needs to be understood further.

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