
Prevalence and Pattern of Psychological Disturbance among Five to Eight year old School-going Children: Preliminary Findings

Volume: 14**Issue: 01****January 1996****Page: 37-43**

Jyothi Shenoy

Reprints request

, Malavika Kapur &

- Department of Clinical Psychology, National Institute of Mental Health & Neuro Sciences, Bangalore 560 029, India

V G Kaliaperumal, - Department of Biostatistics, National Institute of Mental Health & Neuro Sciences, Bangalore 560 029, India

Abstract

This paper reports the findings from the first stage of a two-stage epidemiological study of psychological disturbance among five to eight year old school going children. 1535 children consisting of 810 boys and 725 girls were screened for psychological disturbance using the Children's Behaviour Questionnaire. In all, 18.31 per cent of the children in the sample were found to be "disturbed", with boys having a significantly higher prevalence rate than the girls. In addition, 'antisocial' problems were more commonly found among boys while girls more often manifested 'neurotic' problems. The distribution of individual behavioural/emotional problems has also been reported.

Key words -

Psychological disturbance,**Children,****Prevalence,****Antisocial,****Neurotic****Psychological disturbance,****children,****prevalence,****antisocial,****neurotic**

Over the past decade and a half, several investigations have been carried out studying the prevalence of psychological disturbance among school going children in India. These studies have reported prevalence rates that range between 6.42% and 30.9% [1], [2], [3], [4], [5], [6], [7], [8]. Almost all these studies with the exception of Parvathavardhini [8], have studied older children (over 8 years of age). Further, these studies have restricted themselves of the reporting of overall rates of disturbance, with no data on the distribution of individual behaviour problems. The study of individual behaviour problems is important to determine the "referrability" of these problems [9]. This often provides leads regarding the extent

to which certain individual problems may be prevalent in the general population, for which specific management strategies may be required. Often, the presence of one or two severe problems go undetected during the screening phase by virtue of the ratings not reaching the cut-off point. It is therefore important to look into the prevalence of individual problems as well, in addition to the study of overall prevalence rates.

As data is significantly lacking on younger children (below 8 years of age) in India, an investigation was carried out to study the prevalence and pattern of psychological disturbance among a sample of five to eight year old school-going children [10]. This paper presents the data pertaining to the first phase (screening) of the larger two-stage study on the psychological disturbance among children.

Methods

Subjects

1535 children (810 boys and 725 girls) selected from 5 schools using a purposive sampling procedure formed the sample for this study. They formed 0.90% and 0.91% of the total number of 5 to 8 years old boys (89,065) and girls (80,648) enrolled in over 500 schools of Bangalore city (statistics provided by the Department of Education, Bangalore North and South). Of the 5 schools 4 were managed jointly by the government and a private agency, while one was solely government managed.

Hindus formed 96.29% of the sample studied and the Muslims and Christians 3.71% and 1.82% of the sample respectively. About 15.90% belonged to the lower income group (below Rs.999/- per month), 51% to the middle income group (Rs.1000/- - 1999/- per month) and 32.27% to the higher income group (above Rs.2,000/- per month). There was an equal distribution of boys and girls in terms of age, language spoken at home and medium of instruction. However, there were more boys represented from among the lower income group and more girls represented from the higher income group and from among Muslims.

Forty-eight teachers participated in the study, who were assessed for neuroticism on the Eysenck Personality Inventory [11]. Of these, 46 were females, 32 were married, and 36 had a Bachelor's degree in Education as their highest educational qualification. The average age of the teachers was 36.74 ± 9.23 years with an average teaching experience of 9.28 ± 7.09 years and an average number of hours of contact with their class per week of 19.76 ± 4.78 hours.

Measure

The Children's Behaviour Questionnaire (CBQ) for completion by teachers [12] was used as the screening instrument. Proforma B of the CBQ has 26 items covering behavioural and emotional problems in children to be rated on a three-step response scale viz. certainly applied (2), somewhat applied (1) and does not apply (0). As recommended by Rutter, the cut-off score of 9 was employed in this study. Also, the 'disturbed' children were further classified as antisocial or A (items 4, 5, 15, 19, 20, 26), neurotic N (items 7, 10, 17, 23) or mixed (AN) by summing the ratings of the relevant items (in parenthesis).

The CBQ has been used a screening tool in several prior school surveys. It has also been found that about 53% of the clinic children could be correctly classified with the CBQ [13]. High inter-rater and

test-retest reliability have also been reported for the CBQ in India [14].

Procedure

The 48 teachers who participated in the study rated the 1535 children on the CBQ for the purposes of screening the "disturbed" from the non disturbed" children. The protocols of "disturbed" children were further scored to determine whether they fell into the antisocial (A), neurotic (N) or mixed (AN) category.

Results

The overall prevalence of psychological disturbance on screening was found to be 18.31% with boys having a significantly higher rate than girls ($X^2=15.44$, $df=1$, $P<0.01$). Although no gender differences were found when analyzed separately, a gender X age analysis revealed significant differences in rates at ages 7 and 8 years, with boys showing a greater rate of disturbance than girls (Table I).

Table I - Prevalence of psychological disturbance in the sample on screening

Table I - Prevalence of psychological disturbance in the sample on screening

Note: 1. Age x gender $X^2=23.58$ $df= 7$ NS

2. Boys x age $X^2=4.24$ $df= 3$ NS

3. Girls x age $X^2=4.02$ $df= 3$ NS

NS=Not Significant

A large proportion of disturbed children showed antisocial disorder followed by neurotic and mixed disorders giving a ratio of 14.6:3.13:1. Further, boys more often manifested antisocial disorder ($X^2=23.60$, $df=1$, $P<0.01$) while girls more often showed neurotic disorder ($X^2=20.86$, $df=1$, $P<0.01$) (Table II).

Table II - Prevalence of antisocial, neurotic and mixed disorders in the Disturbed Group on screening

Table II - Prevalence of antisocial, neurotic and mixed disorders in the Disturbed Group on screening

To determine the item distribution of the CBQ in the population studied, the frequencies of occurrence of each behaviour were weighted by summing up the score obtained on any given item for the entire sample. The findings are presented in Table III.

Table III - Item distribution of the Children's Behaviour Questionnaire for the entire sample

Table III - Item distribution of the Children's Behaviour Questionnaire for the entire sample

Tables IV and V suggest that boys more frequently manifested problem behaviours falling under the rubric of antisocial, while girls most often reported neurotic problems.

Table IV - Problems most frequently reported among boys

Table IV - Problems most frequently reported among boys

Table V - Problems most frequently reported among girls

Table V - Problems most frequently reported among girls

Discussion

a) **The prevalence of psychological disturbance**

The prevalence of psychological disturbance in the present sample of five to eight year old children was found to be 18.31%. In general, the prevalence rates obtained across Indian, Western and other Asian studies using the CBQ as a screening measure have ranged from 3% to 32.2% [1], [2], [4], [5], [6], [15], [16], [17], [18], [19], [20].

No specific age trends were noticed in the prevalence rates although a gender by age analysis revealed a tendency for the prevalence to decrease with age for girls and to remain static for boys. An explanation for this finding lies perhaps in the increased control and supervision exercised by the family members over girls' behaviours [21], which either brings down observable deviant behaviour or results in emotional problems among girls which often go undetected and therefore unreported. It is not clear as yet whether this gender difference occurring at a later age is a function of social factors, that of a reporting bias, or both.

b) **Type of psychological disturbance**

The preponderance of antisocial over neurotic and mixed disorders noted in this study has been observed also in several other studies [8], [16], [18]. A similar trend of findings noted in Japan and China have compelled the authors to suggest that "the CBQ is not so good in screening neurotic behaviour in Oriental Children" [22], [23].

As it was suspected that the inherent scoring structure (A items > N items of the CBQ itself resulted in the higher prevalence of A, this was looked into by rescoring all the protocols adopting the method suggested by MacMillan et al [24]. Accordingly, an equal number of items were subsumed under the A and N categories. This method did reduce the proportion of A (to 74.04%) but only marginally ($X^2=3.25$, $df=1$, NS). It appears that A behaviour being readily observable, disruptive and of "nuisance value" gets reported more frequently than do the N behaviour [23].

c) **Prevalence of individual problems**

For the purposes of this study, those problems reported among at least 10% of the sample were considered common problems. Going by this criterion, the common problems in the sample were poor concentration, restlessness, being solitary, fighting and irritability. All these problems with the exception of "solitary" are externalizing in nature. In general, no clear-cut pattern has been established with reference to the frequently occurring problems. It would be interesting to follow-up these problems over a period of time to determine whether they are age specific and transient or are persistent and lead to severe dysfunction.

The least commonly found problems (frequency less than 30%) among Indian children could be broadly grouped as severe conduct problems (eg. truancy, stealing), extreme emotional reactions (eg. tears on arrival at school), habit problems (eg. thumb sucking, nail biting etc.); developmental problems (eg. speech problems, wets/soils etc), somatic problems (eg. aches and pains) and others such as 'twitching' and 'being fussy'. Several non-Indian studies have also reported the infrequent occurrence of some of the afore mentioned problems, in particular, of severe conduct problems and twitching. While the children in this sample are on the one hand at a stage of cognitive and emotional development where the occurrence of problems such as 'theft' and 'truancy' are rare, on the other hand, they have perhaps outgrown several of the developmental problems. This perhaps accounts for a low frequency of these problems in this sample.

d) Gender differences in psychological disturbances

The preponderance of boys over girls (1.55:1) for overall psychological disturbance noted in this study is in line with the findings reported the world over [6], [18], [20], although exceptions do exist to this finding. As yet, no adequate explanation has been offered for this findings, although a combination of biological, psychological and social factors have been implicated [25].

The preponderance of boys over girls was found also for antisocial problems. The girls on the other hand were more often found to manifest neurotic problems. These findings are once again in consonance with the general findings in the area [17], [22]. Evidence however does exist to suggest that during adolescence boys also manifest internalizing/neurotic problems in addition to externalizing/antisocial problems [26]. In order to understand the reason behind these gender differences in rates of specific disorders, further exploration is required, with a focus on psychosocial variables.

1. Rao P N, Psychiatric morbidity in adolescence
Unpublished M.D. dissertation, Bangalore University 1978
2. John P, Psychiatric morbidity in children: An epidemiological study
Unpublished M.D. dissertation, Bangalore University 1980
3. Kurup S, An epidemiological study of psychiatric morbidity in rural children
Unpublished M.D. dissertation, Bangalore University 1982
4. Parvathavardhini R, Psychological problems amongst rural children - An epidemiological study
Unpublished M.Phil. dissertation, Bangalore University 1980
5. Kapur M, [The pattern of psychiatric disturbance amongst residential school children: A preliminary report]
NIMHANS Journal Page: 3: 31-5, 1985
6. Rozario J, Kapur M, Kaliaperumal V G, An epidemiological study of prevalence and pattern of psychological disturbance of school going early adolescents
Journal of Personality & Clinical Studies Page: 6: 165-69, 1990
7. Dalal M, Kapur M, Subbakrishna D K, Prevalence and pattern of psychological disturbance in school going adolescent girls
Indian Journal of Clinical Psychology Page: 17: 83-8, 1991
8. Sarkar A B, Kapur M, Kaliaperumal V G, [The prevalence and pattern of psychological disturbance in school going middle childhood children]
NIMHANS Journal Page: 13: 33-41, 1995
9. Weisz J R, Weiss B, Studying the 'referrability', of child clinical problems
Journal of Consulting & Clinical Psychology Page: 59: 266-73, 1991
10. Shenoy J P, A study of psychological disturbance in five to eight year old school going children

*Unpublished doctoral dissertation, Bangalore University*1992

11. Eysenck H J, Eysenck S N G, *The Eysenck Personality Inventory, San Diego Educational and Industrial Testing Service*1968
 12. Rutter M, A Children's Behaviour Questionnaire for completion by teachers: Preliminary findings
Journal of Child Psychology & Psychiatry Page: 8: 1-12, 1967
 13. Sekar K, Eshwari S C, Indiramma V, Shariff I A, Murthy N S N, [The use of Rutter's scale by teachers in screening maladjusted behaviour among children]
NIMHANS Journal Page: 1: 105-10, 1983
 14. Shenoy J P, Kapur M, Shanmugam V, [Reliability of the Children's Behaviour Questionnaire in an Indian sample]
NIMHANS Journal Page: 13: 59-64, 1995
 15. Kolvin I, Garside T F, Nichol A R, Leitch I, MacMillan A, Screening school children for high risk of emotional and educational disorder
British Journal of Psychiatry Page: 131: 192-206, 1977
 16. McGee R, Silva P R, Williams S M, Behaviour problems in a population of seven year old children: Prevalence, stability and types of disorder
Journal of Child Psychology & Psychiatry Page: 23: 251-59, 1984
 17. Minde K K, Psychological problems in Ugandan children: A controlled evaluation
Journal of Child Psychology & Psychiatry Page: 16: 49-59, 1975
 18. Rutter M, Cox A, Tupling C, Berger M, Yule W, Attainment and adjustment in two geographical areas - I. Prevalence of psychiatric disorder
British Journal of Psychiatry Page: 126: 493-509, 1975
 19. Venables P H, Fletcher R P, Dalais J C, Mithcell D A, Schulsinger F, Mednick S A, Factor structure of the Rutter Children's Behaviour Questionnaire in a primary school population in a developing country
Journal of Child Psychology & Psychiatry Page: 24: 213-22, 1983
 20. Zimmermann-Tansella C, Minghetti S, Tacconi A, Tansella M, The Children's Behaviour Questionnaire for completion by teachers in an Italian sample: Preliminary results
Journal of Child Psychology & Psychiatry Page: 19: 167-173, 1978
 21. Anandalakshmy S, Psychosocial experience of childhood in India: Implications for mental health
*Paper presented at the 5th ADAMHA - NIMHANS Symposium on Child Mental Health, Bangalore, India*1989
 22. Mastuura M, Okubo Y, Kato M et al, An epidemiological investigation of emotional and behavioural problems in primary school children in Japan
Social Psychiatry & Psychiatric Epidemiology Page: 24: 17-22, 1989
 23. Ekblad S, The Children's Behaviour Questionnaire for completion by parents and teachers in a Chinese sample
Journal of Child Psychology & Psychiatry Page: 31: 775-91, 1990
 24. MacMillan A, Kolvin I, Garside R F, Nicol A R, Leitch I M, A multiple criterion screen for identifying secondary school children with psychiatric disorder. Characteristics and efficacy of the screen
Psychological Medicine Page: 10: 265-76, 1980
 25. Eme R F, Sex differences in psychopathology: A review
Psychological Bulletin Page: 86: 574-95, 1979
 26. Rutter M, Tizard J, Yule M, Graham P J, Whitmore K, Research report: Isle of Wight studies, 1964-1974
Psychological Medicine Page: 6: 313-32, 1976
-