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BEHAVIORAL PROBLEMS IN CHILDREN ATTENDING PEDIATRIC OUTPATIENT DEPARTMENT: A CROSS SECTIONAL STUDY

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ABSTRACT: BACKGROUND: Behavioral problems in children are one of the most common and rising problems in India. The studies of behavioral problems in children would give us data for mental health planning for children. We can identify children at risk and preventive intervention can be made at the earliest. **AIMS:** Aim of this study is to determine the proportion of various behavioral problems in children of age 5 to 15 years. Objectives of this study are to find the relationship between behavioral problems and socio-demographic variables and to determine the frequencies of internalizing, externalizing and other behavioral problems. **SETTINGS AND DESIGN:** In this cross sectional study, 400 children in the age group of 5-15 years from the pediatrics department of a tertiary care hospital were selected. **METHODS AND MATERIALS:** Child Behavior Check List (CBCL) was used to measure the magnitude of problem behaviors. **STATISTICAL ANALYSIS USED:** Descriptive statistics, Chi-square test/Fishers exact test. **RESULTS:** The sample included 400 children and out of them 22% had behavioral problems. Out of them 4% of children had internalizing problems, 9.75% had externalizing problems and 8.25% had other problems (Social and attention). Regarding the frequency of psychiatric disorders, conduct disorder was the most common problem (2.75%). Externalizing problems were prevalent in males while internalizing problems were prevalent in females. There is a significant association between parent's (Deceased/Alive) status, their marital status, family history of psychiatric illness and the development of behavioral problems in children. **CONCLUSION:** Therefore identifying the children with behavioral problem in young age and treating them would go a long way in preventing psychiatric morbidity later life. The need for such study is very much warranted in developing countries like India where such information is limited and this study would go on to augment existing data.

KEYWORDS: Behavioral problems, Children, Psychiatric morbidity.

INTRODUCTION: Behavioral problems in children are one of the most common and rising problems in India. Still large number of cases remains unreported.¹ According to a study from North India; about 50% of behavioral problems can persist and develop into childhood mental health problems.

This may lead to consequences like substance misuse, family violence and even crime in the future.² Mental wellbeing of a child is completely influenced by lots of factors like environmental factors and life events.

The studies of behavioral problems in children would give us data for mental health planning for children. We should identify children at risk and preventive intervention should be made at the earliest. Only then we can prevent the chances of problem behaviors developing into a disorder in later life.

Aim of this study is to determine the proportion of various behavioral problems in children of age 5 to 15 years.

ORIGINAL ARTICLE

Objectives of this study are to find the relationship between behavioral problems and socio-demographic variables and to determine the frequencies of internalizing, externalizing and other behavioral problems.

MATERIALS AND METHODS: The study was undertaken during the period between 2012 and 2014. The sample of 400 children of 5-15 years was drawn from the pediatric outpatient department in a tertiary care, teaching hospital, Puducherry. The procedures followed were in accordance with the ethical standards of the institutional ethics committee of our institution and with the Helsinki Declaration of 1975 that was revised in 2000. Every consecutive child who presented to pediatric department was recruited. Children who had severe medical illnesses were excluded. After obtaining informed consent from parents and assent from the children of age 7 and above, they were screened using child behavior check list (CBCL).

Socioeconomic status was assessed by modified Kuppusamy scale.³ Socio-demographic variables and family histories of psychiatric illnesses were recorded in the proforma.

The CBCL is a component of the Achenbach System of Empirically Based Assessment (ASEBA). Questions were read to the parents and questionnaire was filled by the researcher. Scores less than 93rd percentile indicates normal range, above the 93rd and 97th percentile indicates borderline range, and scores above 97th percentile indicates clinical range.

Patients who screened positive for behavioral problems in CBCL were further assessed with DSM IV TR⁴ criteria for a disorder if any.

Statistical analysis was done using the SPSS 16.0 version. Descriptive statistics was used to find the frequencies and percentages. After checking for normality of data, Chi- square test/ Fishers exact test was used for finding the association and p- value of less than 0.05 was considered significant.

RESULTS: In this study the prevalence of behavioral problems in the study population was found to be 22%. Out of them 4% had internalizing problems, 9.75% had externalizing problems and 8.25% had other problems (social and attentional). Behavioral problems were found to be significantly associated with the age, gender, parent's status (deceased or alive), parent's marital status and family history of psychiatry illness.

When those children who had behavioral problems according to CBCL were assessed with DSM-IV TR, conduct disorder was found in 2.75%, ADHD in 1.50% and mental retardation in 0.75%. Behavioral disorders were found to have significant association with socioeconomic status, area of residence, marital status and family history of psychiatric disorder.

Fig. 1: Prevalence of Behavioral Problems

ORIGINAL ARTICLE

Behavioral Problem	Prevalence
Internalizing problems	16(4%)
Externalizing problems	39(9.75%)
Others	33(8.25%)
No problems	312(78%)

Table 1: Prevalence of Behavioral Problems

Fig. 2: Prevalence of Psychiatric Disorders in the Study Population

No Disorder	380(95%)
Conduct Disorder	11(2.75%)
ADHD	6(1.50%)
MR	3(0.75%)

Table 2: Prevalence of Psychiatric Disorders in the Study Population

DISCUSSION: In our study 88 children (22%) were found to have behavioral problems. This was comparable to others studies done in India^{5,6} Most commonest disorder in our study was conduct disorder 2.75% which replicates the results of study done by Ahmad et al from the same country.⁷

Externalizing problems were the most common disorder in this study (9.75%) which goes along the finding of Shenoy et al.⁸ Girls (Age group of 13 to 15) had more of internalizing behavioral (3.5%) problems whereas boys (Age group of 5 to 12) had more of externalizing problems (7.5%).

This again is in keeping with findings of other studies.^{8,9} as already found by Srinath et al, the majority of children who had conduct disorder and ADHD were from the rural background.⁵ Children who met the criteria for conduct disorder and ADHD were from lower socioeconomic status which is statistically significant.

This finding correlates with the finding of another study that behavioral problems are more common in low socio economic status.¹⁰ This study replicates the findings of other studies which had shown that such behavioral problems are prevalent in children whose parents are separated.^{11,12} Out of 400 children, 6(1.5%) children had single parent and all the 6 children had internalizing problems. Out of 16(4%) children who had internalizing problems, parents of 7 children were separated.

ORIGINAL ARTICLE

Out of 35(9.75%) children who had externalizing problems, parents of 4 children were separated. Out of 11 children who had conduct disorder, 4 children had single parent. All 17 children who fulfilled the criteria for disorders had positive family history of one or more psychiatric illness as history collected from the parents. Again this finding has a correlation with another study.⁶

As this is a cross sectional study it should be followed up by longitudinal study to find out the course and pattern of their disorder. Moreover, other socio-demographic entities should be searched for and compared to find out any possible association. Also it should be noted that results from this study only describe children who presented to pediatric outpatient department and may not be applicable to children from institutions like psychiatric hospitals, juvenile justice centers and community.

This higher prevalence of behavioral disorders in children emphasizes the need to screen for behavioral problems at every opportunity. Strategies have to be made to implement systematic screening of children in hospitals as well as in school settings.

As there was significant association with single parent households, additional attention should be paid to the children with single parent. Screening whole communities, linking programs to preschools, or advertising statewide may increase participation in prevention or intervention programs for the future.

There is need to raise public awareness about the prevalence of these often "hidden" emotional disorders in Indian children Identifying the children with behavioral problem in young age and treating them would go a long way in preventing psychiatric morbidity in later life.

The need for such study is very much warranted in developing countries like India where such information is limited and this study would go on to augment existing data.

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ORIGINAL ARTICLE

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