ORIGINAL ARTICLE

PREVALENCE OF CONDUCT DISORDER IN PRIMARY SCHOOL CHILDREN OF RURAL AREA

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ABSTRACT: CONTEXT: There is a lacuna of studies on Conduct Disorder (CD) in the Indian context. AIMS: (i) To identify the prevalence of CD in primary school children, (ii) To identify the gender difference in the prevalence of CD. SETTINGS AND DESIGN: This is a cross sectional study of school aged children selected from four different schools in Rewa district. MATERIALS AND METHODS: Nine hundred children aged between 6 and 11 years were selected from different four schools’ in Rewa district after obtaining informed consent from their parents and the school authorities. The study was a two phase study. The presence of CD was assessed by using Rutter CBQ and those who were screened positive were subjected to DSM-IV-TR criteria for the final diagnosis. STATISTICAL ANALYSIS: Statistical Product and Service Solutions (SPSS) 10 software Mean and Standard Deviation, and chi square test were used for statistical analysis. RESULTS: The prevalence of CD among primary school children was found to be 5.48. Prevalence was found to be higher among the males (66.67%) as compared to that of females (33.33%). CONCLUSION: The present study shows a high prevalence of CD among primary school children with a higher prevalence among the males than the females.
KEYWORDS: Conduct Disorder (CD), Child Behavior Questionnaire (CBQ), Diagnostic Statistical Manual-IV-Text Revised (DSM-IV-TR).

INTRODUCTION: Children under the age of 15 years constitute about 40% of the population of the developing countries.1 While infant and childhood mortality rates are declining, rising rates of intellectual and psychological morbidity has been observed.2 As a result child psychiatric epidemiology is on the threshold of an important future in its capacity to investigate the psychological health of large aggregate of children.3

The family, the school and other social institute exercise a significant influence on the process of child development.4 Self-esteem becomes a central issue as children develop the cognitive ability to consider at the perception of how others see them. For the first time, they are judged according to their ability to produce socially valued output, i.e. good academic grades and desirable behavior. The focus on accomplished as described by Erickson, Crisis between industry and inferiority.5

The school is an important catchment area and therefore, school mental health survey can provide an excellent opportunity for estimating prevalence of childhood psychiatric disorders.

There is only a limited source of information regarding the prevalence of CD in the Indian context. Hence, the current study aims at selecting primary school children from a community sample. The objectives of the study were: (i) To identify the prevalence of CD in primary school children, (ii) To identify the gender difference in the prevalence of CD.
Occasional rule breaking and rebellious behavior is common during childhood and adolescence, but in youth with conduct disorder behaviors that violate the rights of others are repetitive and pervasive. Estimated rates of conduct disorder among the general population range from 1 to 10 percent, with a general population rate of approximately 5 percent.

The disorder is more common among boys than girls, and the ratio ranges from 4:1 to as much as 12:1. Conduct disorder occurs with greater frequency in the children of parents with antisocial personality disorder and alcohol dependence than in the general population. The prevalence of conduct disorder and antisocial behavior is associated with socioeconomic factors.

**SAMPLE:** The sample consisted of 900 primary school children aged between 6 and 11 years selected from four different schools in Rewa District.

**TOOLS:** (a) Children’s Behavior Questionnaire (CBQ, Rutter). This questionnaire was given to the teachers of the children identified in the study as having ODD and CD. It consists of two separate questionnaires, namely (i) CBQ-A, (ii) CBQ-B. CBQ-A is used for assessing their academic performance, reading and writing difficulties, and need for psychiatric guidance, and CBQ-B is used for assessing their behavioral difficulties, if any (b) The diagnostic criteria of DSM-IV-TR given by American Psychiatric Association.

**METHODOLOGY:** Approval from Institutional Human Ethical Committee (IHEC) was obtained before conducting the study. This is a cross sectional study involving 900 primary school children aged between 6 and 11 years (3rd to 5th std.) selected on a random basis from four different schools in Rewa district. After obtaining permission from the school Principals, the written informed consent form was given to the parents through the children. Parents of 900 children gave consent for allowing their children to participate in the study.

**PERFORMA A:** Consists of 9 items which seek information about educational performance, consistency in academic work, attendance, sports, reading and writing difficulties nick names, physical handicap and teachers opinion about the need of psychological help.

**PERFORMA B:** Consists of 26 items, tapping the behavioral and emotional problems, shown by children in school. It has to be rated in a three step response scale 2, 1, 0 for certainly applies, ‘somewhat applies’ and ‘does not apply’. A score of 9 (total) or more is considered to show evidence of some disorder as suggested by Rutter et al (1967).

For all the children screened positive will be asked to follow up in psychiatry department of SS Medical College with their parents and diagnosis is made by psychiatrist using DSM IVTR criteria given by American Psychiatric Association.

Statistical analysis was done using SPSS (Statistical Product and Service Solutions) 10 Software. Mean and Standard Deviation and Chi Square Test were used for analysis.

**RESULTS:** On summarizing the study total of 900 students of class III, IV & V were screened through child’s behaviour questionnaire and 230 were found to be having some psychiatric morbidity. On further interviewing the child along with parent’s final diagnosis of psychiatric disorder was made
using DSM-IV-TR criteria’s. Study was carried out in four schools of Indore district. Appropriate statistical tests were applied to the result obtained and found that 25.45% of the total subjects were having psychiatric morbidities.

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Of the total students in the study population those who are found positive through Rutter’s B Scale total males were 137 and females were 93. The prevalence of conduct disorder 5.48%.

| Sex     | No. of Children | Percentage |
|---------|-----------------|------------|
| Male    | 137             | 59.56%     |
| Female  | 93              | 40.43%     |
| Total   | 230             | 100%       |

Table 1: Sex wise distribution of cases

Table 1 shows that:

| Disorder         | Total         |
|------------------|---------------|
|                  | No. | %   |
| Conduct Disorder | 50   | 5.48 |

Table 2: The prevalence of various types of psychiatric morbidities in study population (in percentage) (n=900)
### Table 3: Gender wise estimation of psychiatric morbidity in study sample (in percentage) (n=900)

| Disorder        | Male | Female |
|-----------------|------|--------|
| No.             | %    | No.    | %    |
| Conduct Disorder| 39   | 4.23   | 11   | 1.25 |

### Table 4: Gender wise differentiation

| Disorder          | Female | Male |
|-------------------|--------|------|
| Conduct disorder  | 13     | 36   |

![Bar chart showing gender differences in Conduct Disorder](chart.png)
DISCUSSION: Appropriate statistical tests were applied to the result obtained and found that 25.45% of the total subjects were having psychiatric morbidity.

Of the total students in the study population those who are found positive through Rutter’s B Scale total males were 137 and females were 93. The prevalence of Conduct disorder 5.48%.

**Gender wise estimation of psychiatric morbidity in study population is as follows:**

Epidemiologic studies of negativistic traits in nonclinical populations found such behavior in 16 to 22 percent of school age children. According to the text revision of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), prevalence rates for this disorder range from 2 to 16 percent. The disorder seems more prevalent in boys than in girls before puberty and the sex ratio appears to be equal after puberty.

| CD       | Males      | Female    |
|----------|------------|-----------|
| Present  | 36 (7.81%) | 13 (2.96%)|
| Absent   | 426 (92.19%) | 426 (97.04%) |

Table 5

Chi square (trend) : 10.265
P Value : 0.001

When this data was analysed statistically it was found to be significant:

\( P = 0.001 < 0.05 \)

Estimated rates of conduct disorder among the general population range from 1 to 10 percent, with a general population rate of approximately 5 percent. The disorder is more common among boys than girls, and the ratio ranges from 4:1 to as much as 12:1.

**SUMMARY AND CONCLUSION:** Behaviour or emotional problems cause discomfort in childhood and disrupt family and social activities. Children with behaviour or emotional problems are more likely to have similar problems later in life. It is said that Quality of life one has lived in childhood, will determine ultimate nature of adulthood it gets differentiated into. Thus, behavioural problem in childhood could be the stepping-stones to more serious problems in the form of adult psychiatric disorders. However, unlike physical illness, which in most of the cases has clear-cut symptomatology, any deviation from normal mental development or behaviour in children may not be easily identified by the parents except from grave observable changes.

On summarizing the study total of 900 students of class III, IV & V were screened through child’s behaviour questionnaire and 230 were found to be having some psychiatric morbidity. On further interviewing the child along with parent’s final diagnosis of psychiatric disorder was made using DSM-IV-TR criteria’s. Study was carried out in four schools of Rewa district. Appropriate statistical tests were applied to the result obtained and found that 25.45% of the total subjects were having psychiatric morbidities.

Of the total students found positive in the screening test of the study population total males were 137 and females were 93. The prevalence of Conduct disorder was found to be 5.48%. In this study group students were not having any intellectual disabilities, as mental retardation in children was excluded from the study.
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