

## Original Research Article

# Study of sociodemographic profile of juvenile boys admitted in an observation home

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## ABSTRACT

**Background:** World Health Report estimated that 20% of children and adolescent suffer from a disabling mental illness worldwide. Incidences of vagrancy, delinquency and crime have been growing among steadily increasing juvenile population in the last few years. Various studies have revealed the presence of difficult family environment, lower socio-economic status, and low parental education associated with the psychiatric morbidity in children. Given the growth of juvenile delinquent population, epidemiologic data of this high risk group is becoming increasingly important. Therefore this study was undertaken to study the sociodemographic profile of male juvenile admitted in an observation home.

**Methods:** This cross sectional study was conducted in an Observation Home for Boys. The study sample consists of 50 boys aged between 6-16 years. Out of 50, 20 juveniles under conflict of law and 30 under care and protection were included.

**Results:** All the juveniles in this study were belonging to the lower socioeconomic status. Delinquency was significantly more common in older age group (12-16 years) than younger age group (6-11 years). The maternal education and school dropout rate had significant correlation with delinquency in our study, found to be more common in juveniles under conflict of law than those under care and protection.

**Conclusions:** Establishment of multidisciplinary mental health services at each juvenile center of India, for complete rehabilitation of the juveniles admitted there, under social justice system is immediately required.

**Keywords:** Delinquency, Juvenile, Observation home, Socio-demographic factors

## INTRODUCTION

India is home for almost 19% of the world's children. According to one assumption 40% of these children are in need of care and protection, which indicates the extent of the problem.<sup>1</sup> There has been steady increase in the proportion of young people over the years.<sup>2</sup> World Health Report (2000) estimated that 20% of children and

adolescent suffer from a disabling mental illness worldwide. Incidences of vagrancy, delinquency and crime have been growing among young people in the last few years.<sup>3</sup> Boys outnumber girls on these lists with large number of school dropouts.<sup>4</sup> The incidence and number of juvenile delinquency under Indian Penal Code is 1.1% of total crimes in 2009, which was just 0.5% in 1999. In 2009 The Registrar General of India reported 21, 21, 345

cognizable crimes of juvenile delinquency under Indian Penal Code. The rate of crimes by juveniles has doubled from 0.9% to 2.0% in ten years duration of 1999 to 2009.<sup>5</sup>

Juvenile crime and delinquency is common all over the world. In the large-scale Denver, Rochester, and Pittsburgh longitudinal study, the annual prevalence of so-called street crimes (for example, burglary, serious theft, robbery, and aggravated assault) increased from less than 15% at age 11 years to almost 50% at age 17 years.<sup>6</sup> The intensity and gravity of crimes depend mostly on the social, economic and cultural conditions in each country. There is evidence that there is worldwide increase in juvenile criminality. In many cases, youth offenders are street children who have been exposed to violence in their immediate social environment, either as observer or as victim. Their basic education is poor, their primary socialization from family is inadequate, and their socioeconomic environment is shaped by poverty and destitution.<sup>3</sup>

Risk factors are variables that predict an increased probability of delinquency. In a recent review Murray J and Farrington DP, described risk factors in juvenile delinquency under three headings as individual, social, and family related factors. They found that offenders differ significantly from non-offenders in many respects. The significant individual factors included impulsiveness, low IQ, low school achievement among others. Family factors comprised of poor parental supervision, punitive or erratic parental discipline, cold parental attitude, child physical abuse, parental conflict, disputed families, and antisocial parents. While high-risk social factors were large family size, low family income, antisocial peers, high delinquency rate schools, and high crime neighborhoods. Further, the probability of an adverse outcome, such as conduct disorder/delinquency increases with number of risk factors. While the precise causal chains that link these factors with antisocial behavior, and the ways in which these factors have independent, interactive, or sequential effects, are not well understood, it is clear that numerous replicable risk factors have been identified.<sup>7</sup>

Special populations of children like street children remind us of many children who have been deprived of an environment that could support healthy development.<sup>8</sup> The Observation Home children often belong to slum areas, have poor socio-economic status, familial problems, are laborer's or they may be migrants. Various studies have revealed the presence of difficult family environment, lower socio-economic status; low parental education and illness, associated with the psychiatric morbidity in children.<sup>9</sup> Children continue to suffer a disproportionate share of adversities. Exposure to early adversities is not only associated with increased morbidity in childhood but also across the lifespan of a person.<sup>10</sup>

Rehabilitation for juvenile delinquent children is the key whether we are addressing healthcare, poverty, population control, unemployment or human rights issues. In the present study, we have assessed the socio-demographic aspects as well as factors responsible for the admission of juvenile delinquents to the Observation Homes. Given the growth of juvenile delinquent population, epidemiologic data of this high risk group is becoming increasingly important.

## METHODS

This cross sectional study was conducted in an observation home for boys. The study sample consists of 50 boys from the observation home aged between 6-16 years. Out of 50 juvenile boys admitted in observation home, 20 juveniles under conflict of law (delinquent boys) and 30 under care and protection (non-delinquent boys) were included in the study.

Study was approved by the institutional ethics committee. Prior to conducting the study, informed written consent was sought from the superintendent of observation home for boys. Informed written assent was also taken from boys above 12 years of age.

Information regarding the reason for admission and socio-demographic details was obtained from the Observation Home records and concerned authorities. Further enquiries were made from the children. Various socio-demographic aspects (viz. age, rural/urban background, socioeconomic status, religion, mother tongue, type of family, educational status of parents, working status of mother, parental loss, parental substance abuse, school drop-out and their temperament) were analyzed and compared between juveniles under conflict of law and juveniles under care and protection law. Factors responsible for their admission in observation home were also assessed.

The findings were tabulated and statistical analysis was done by using graph pad prism version 6 software. We applied chi square test and Fischer's Exact Test (for small sample sized data) to test the significant differences in qualitative data between Juveniles under conflict of law and juveniles under care and protection. All hypothesis tests were two-sided and p value less than 0.05 were considered as significant.

## RESULTS

As per the definitions given in Juvenile Justice (care and protection) Act 2000, the sample of boys was divided into two groups, as those under conflict of law numbering 20 (40%) and those under care and protection numbering 30 (60%).<sup>11</sup>

Their exact age was not known to many juveniles, so the age was taken as noted in official records of the Observation Home.

**Table 1: Sociodemographic factors and juvenile delinquency.**

Variable	Juvenile under conflict of law (20)	Juvenile under care and protection (30)
<b>Age distribution : P value = &lt;0.0001##</b>		
06-11 years	00 (00%)	15 (50%)
12-16 years	20 (100%)	15 (50%)
<b>Rural/ urban background: P value = 0.485</b>		
Rural	10 (50%)	12 (40%)
Urban	10 (50%)	18 (60%)
<b>Socioeconomic status: P value = not calculable</b>		
Lower	20 (100%)	30 (100%)
<b>Religion: P value = 0.058</b>		
Hindu	11(55%)	24 (80%)
Other*	09 (45%)	06 (20%)
<b>Mother tongue: P value = 0.0512</b>		
Marathi	10 (50%)	23 (76.7%)
Other**	10 (50%)	07 (23.3%)
<b>Type of family: P value = 0.165</b>		
Broken	08 (40%)	18 (60%)
Nuclear/joint	12 (60%)	12 (40%)

\*includes other religions like Muslim, Sikh, Buddhism, Christian, and those whose details were not available; \*\*includes languages as Hindi, Tribal, Panjabi, Bengali, Nepali; ##significant at, p value <0.01

**Table 2: Parental factors and juvenile delinquency.**

Variable*	Juvenile under conflict of law (20)	Juvenile under care and protection (30)
<b>Educational status of mother: P value = 0.026#</b>		
Uneducated	17 (85%)	17 (56.7%)
Educated	02 (10%)	12 (40%)
<b>Educational status of father: P value = 0.214</b>		
Uneducated	12 (60%)	13 (43.3%)
Educated	07 (35%)	16 (53.3%)
<b>Working status of Mother: P value = 0.73</b>		
Working	15 (75%)	21 (70%)
Not working	04 (20%)	08 (26.67%)
<b>Parental loss: P value = 0.817</b>		
Loss of parent	10 (50%)	14 (46.7%)
No loss of parent	10 (50%)	16 (53.3%)
<b>Parental substance abuse: P value = 0.38 (mother using substance); P value = not calculable (father using substance), P value = 0.68 (both parents using substance)</b>		
Mothers using substance	18 (90%)	24 (80%)
Fathers using substance	19 (95%)	29 (96.7%)
Mother and father both using substance	17 (85%)	24 (80%)

\*parental details were not available for one juvenile under conflict of law and one from juvenile under care and protection; #significant at, p value <0.05

### Age distribution

Out of 50 boys, 15 (30%) were from age group 6-11 years and 35 (70%) from the age group 12-16 years. The youngest juvenile was 8 years old while the eldest was 17 years. This 17 year old juvenile crossed the age limit of Observation Home (16 years) during the study period, but was awaiting transfer to another Observation Home for

older boys. The average age of juveniles under conflict of law (14.75 years) was more than the average age of juveniles under care and protection (11.97 years).

Delinquency was significantly more common in older age group (12-16 years) than younger age group (6-11 years) (p value <0.0001).

**Rural/urban background and socioeconomic status**

Out of 50 juveniles, 44% were from rural areas and remaining 56% from urban areas. All the juveniles were living in slum areas with kaccha house. All juveniles in this study belonged to lower socioeconomic status.

**Religion**

The study included 35 (70%) Hindu boys, 10 (20%) Muslim boys and the rest 05 (10%) were from Christian (01), Buddhist (02), and Sikh (01) religions, and the details of one juvenile were not available. Mother tongue of majority was Marathi 33 (66%) followed by Hindi 10 (20%), and other languages (14%) including Bengali (03), Nepali (01), Punjabi (01), and Tribal (02) representing the diversity of population under study.

**Type of family**

As per self-report and records, the number of juveniles from broken family was 25 (50%), and nuclear family was 22 (44%). Broken family included families with separation of the parents or loss of the parents due to death. Only 2 juveniles were from joint family and one was from an orphan home, whose family details were not available.

**Educational status of parents**

In the present study, parents were classified in two groups according to educational status as, 1) uneducated (68% of mothers and 50% of fathers) and 2) educated which is further divided into those having primary education (18% of mothers and 22% of fathers) and having secondary education (10% of mothers and 24% of fathers). None of the parents were educated beyond 10th class. More mothers (34) were uneducated as compared to fathers

(25). Juveniles under conflict of law were having significantly more proportion of uneducated mother than juveniles under care and protection (P = 0.026). In 22% of juveniles, both parents were uneducated. The family details of the orphan were not available.

**Working status of mother**

37 mothers (74%) were working outside home, as house maid (8), farm worker (8), casual worker in shops and offices (6), laborer (4), nurse (2), aaya (2), while three of them were commercial sex workers and four were beggars. Only 13 (26%) mothers were house wives and most had poor living conditions.

**Parental loss**

Out of 50 juveniles, 15 (30%) had lost one parent while 09 (18%) had lost both the parents. The reasons for parental loss were either death of parent (14 among mothers and 17 among fathers) or absconded from home (02 among fathers), or separation [among 09 (18%) parents]. 46.7% of juveniles under care and protection had lost their parents, which was the reason for admission in observation home, as there was nobody to look after them.

**Parental substance use**

Both the parents of 41 out of 50 boys were reported to have substance abuse in some form. Most common substance use among mothers was tobacco 38(76%), while 3 used alcohol as well. Almost all fathers (98%) were using tobacco, with 30 using both alcohol and tobacco while 16 used only tobacco via chewing or smoking (bidi/cigarettes). 3 fathers were found to be using more than two substances.

**Table 3: Child related variables and juvenile delinquency.**

Variable	Juvenile under conflict of law (20)	Juvenile under care and protection (30)
<b>Schooling: P value = 0.015#</b>		
Attending	05 (25%)	18 (60%)
School dropout	15 (75%)	12 (40%)
<b>Temperament: P value = 0.560</b>		
Difficult	11 (55%)	12 (40%)
Easy	05 (25%)	11 (36.7%)
Slow to warm	04 (20%)	07 (23.3%)

#significant at, p value <0.05.

**Schooling**

It was noted that 54% of juveniles were not attending any school. School dropout rate was significantly more common in juveniles under conflict of law than those

under care and protection (P = 0.015). School dropout had many reasons and most juveniles reported that they didn't like school. Other reasons reported for not attending school were need to work to earn money for the family, family not insisting and disciplining them to

attend school, parent not paying attention to their attendance at school, truant behavior, underachievement, poor school performance, and substance abuse. The juveniles, who were not going to the school, were working to earn the money to help the family. They were mostly doing work in farm, hotels and garages, or doing labor work; 4 were found begging on the streets. The occupation of vendor and helper was more common in those juveniles who had run away from the home (16%).

**Temperament**

Since the primary care takers/parents were not available information regarding the temperament and behavior in Observation Home was obtained from Observation Home professionals as well as records of child, and added information during the mental status assessment and child’s emotional responses. In our study, 46% had difficult temperament, 32% had easy temperament, and remaining 22% were found slow to warm.

**Table 4: Reasons for admission, Juvenile under conflict of law (20).**

Juvenile under conflict of law	Number (20)
Theft <sup>^</sup>	11 (55%)
Violence (homicide, assault)	07 (35%)
Other (torture, carrying weapon)	02 (10%)

<sup>^</sup>Theft included: crimes like stealing money, mobiles, bikes, robbery.

**Table 5: Reasons for admission, Juvenile under care and protection (30).**

Juvenile under care and protection	Number (30)
Found unattended*	12 (40%)
Orphan**	05 (16.7%)
Social reason (single parent, poverty)	04 (13.3%)
Unmanageable at home***	09 (30%)

\*Found unattended included juveniles found on street begging, using substance, or those lost from the home; \*\*juveniles admitted by the relatives other than the parents for care and protection; \*\*\*juveniles admitted by the parents due to behavioral disturbances not manageable at home.

The reasons for admission for the juvenile under conflict of law were the crimes they had committed. These were divided into violent and non-violent types. Violent crimes included homicide and assault to others. The non-violent crimes were theft, carrying a weapon, torture, and burglary. The information regarding the nature of crime was taken from the official records. Non-violent crimes were seen in 13 children, these were more common than the violent ones (07). There were four cases of homicide. One boy had allegedly murdered two persons in two separate incidences. The acts of theft were done by 11 boys to get the money. The articles stolen included bikes, money, and mobile. One boy was involved in robbery with other family members, while one was arrested for threatening the passerby for money.

The reasons for admission among juveniles under care and protection were divided into those found unattended on the street, station, and other places. Majority of those found unattended were found either begging, or doing some work at station or stalls for the food and shelter with inability to get back to home or had history of running away from home. The reasons for running away from home included altercation with family members, poor economic condition, and physical abuse by the parents mainly father with substance use. Juveniles described poor family environment at home in the form of repeated altercations between the parents, loss of parent, lack of supervision and care by the parents, substance use by the parent, need for working at home to support the family.

30% of them were kept in the Observation Home as they were not manageable at home due to their behavioral problems. The behaviors reported were substance use, repeated altercation and complaints from the school, truancy from the school, troubling the siblings, disobedience at home and the school etc. 9 were admitted for the social reasons including orphans 5(16.7%), those with single parent, and due to poverty as there was neglect to child care by the parents.

**DISCUSSION**

**Age distribution**

All boys under conflict of law were in the age group of 12-16 years which indicates the higher rate of violence and crime as the age advances, and this finding was statistically significant (p value <0.0001). Age of onset is an important factor for etiologic and management considerations. An early age of onset is prognostic of chronic deviance, while late age of onset of disruptive behavior, tends to be transitory and less serious.<sup>12</sup> In a review of psychiatric morbidity in juvenile delinquents, by Teplin et al, the youngest age group had the lowest rates of many disorders. This included conduct disorder, generalized anxiety disorder, and all the substance use disorders.<sup>13</sup> In a study by Abrams et al, regarding the psychiatric co-morbidity in juvenile delinquents, the 14-15 years age group had higher rates of psychotic disorders than the 16 and above age group. Significantly more males aged 16 and older (41.2 percent) had two or more types of disorders than males aged 13 and younger (27.0 percent). Similarly, more males aged 14 and 15 (45.3 percent) had two or more types of disorders than males aged 13 and younger.<sup>14</sup>

**Rural/urban background and socioeconomic status**

All juveniles in this study belonged to lower socioeconomic status with family income below 25,000 per year i.e. below poverty line. Poverty was reason for admission in 4 out of 30 juveniles under care and protection. The relation between low socioeconomic status and delinquency varies according to whether



socioeconomic status is measured by income and housing or by occupational prestige. Numerous indicators of socioeconomic status were measured in the Cambridge Study, both for the boy's family of origin and for the boy himself as an adult, including occupational prestige, family income, housing, and employment instability.<sup>15</sup> Most of the measures of occupational prestige were not significantly related to offending. However, low family income and poor housing predicted official and self-reported, juvenile and adult, offending.<sup>16</sup>

Disruptive and delinquent behavior is particularly associated with poor and disadvantaged neighborhoods.<sup>17</sup> In a cross sectional survey with follow up study by Lipman and Boyle, they found that there was significant relation between low income and psychosocial morbidity. Also logistic regression revealed that low income and non-economic factors (low maternal education and family dysfunction) shared significant independent influences on the prevalence of psychosocial morbidity.<sup>18</sup> However in this study all juveniles were from lower socioeconomic status, hence, we could not study the difference due to socioeconomic status.

#### ***Mother tongue***

All of the juveniles could be interviewed in either Marathi or Hindi. There was one child from tribal area who had difficulty in communication in other languages. But the interviewer could develop rapport with him, which helped in understanding his problems. Such juveniles could be transferred to the areas where they belong as their prolonged stay in such situations is more distressing for juveniles.

#### ***Type of family***

Several aspects of child-rearing practices, such as poor supervision, lack of parental warmth are correlated with children's disruptive behavior or delinquent behavior.<sup>19</sup> In a study by Najman et al, he found that mothers who experienced no partner changes (married and single) reported the lowest rates of child behavioral problems. In addition mothers who more often described their relationship with their partner as poor also reported the highest rates of child behavioral problems. Mothers who experienced no partner changes or no conflict appeared to have children with fewest behavior problems.<sup>20</sup> A broken home results in poor family environment and it plays a major role in adolescent delinquency.<sup>21</sup>

#### ***Educational status of parents***

Narang R et al used similar classification in their community based study of psychiatric morbidity in children. The lower socioeconomic condition and lower rates of education represent the socially and financially disadvantaged population under the study.<sup>22</sup> Factors like poverty, large family size, nuclear family pattern and illiteracy have a great bearing in causing aberrant

behavior in these children.<sup>21</sup> In this study we found significant correlation between maternal education and delinquency (P value = 0.026). Maternal illiteracy was more common (85%) in juveniles under conflict of law than juveniles under care and protection (56.7%).

#### ***Working status of mother***

Due to low socioeconomic conditions mothers have to work outside home to support the family in this population. It has been noted that antisocial children disproportionately come from low socioeconomic status families. In the Ontario child health study, children with conduct disorder tended to come from low-income families, with unemployed parents, living in subsidized housing, and dependent on welfare benefits.<sup>23</sup> In another community study, low socioeconomic status, low family income, and low parental education predicted children with conduct disturbances.<sup>24</sup>

In this study we did not find any significant correlation between working status of mother and delinquency in their sons. This may be because in the days when working mothers were uncommon, it was often argued that they caused delinquency. It was expected that they would supervise their children less well than would non-working mothers. However, in Cambridge study, having working mother was associated with a relatively lower risk of delinquency. Possible explanation was, because full-time working mothers tended to have higher incomes and smaller families.<sup>25</sup>

#### ***Parental loss***

50% of juveniles under conflict of law had lost their parents, and hence many of them were in the observation home since long duration, waiting for their bail. This finding is similar to the study of juvenile delinquents done in Mumbai, where 45% of juvenile boys had lost one or both the parents.<sup>21</sup> In one case the juvenile had completed his legal proceedings but the family was not willing to take him back. In a study of 50 delinquent children by Giel and Van Luijk on 50 juvenile delinquents in Abada A, they found that 47% of juveniles were more or less rejected by their relatives and 74% rarely if ever received visits from their relatives.<sup>26</sup>

#### ***Parental substance use***

In this study, 41 out of 50 boys had both parents abusing substance in some form. In two studies by Eapen et al and Rahi M et al, they found alcohol related problems in family and alcoholic fathers to have significant association with psychiatric morbidity in children.<sup>27,28</sup> Substance use in parents predicted delinquency in juveniles, as found in Pittsburgh youth study.<sup>17</sup> Smoking by mother during pregnancy was particularly found to be an important risk factor. The Northern Finland Birth Cohort study also showed that maternal smoking during

pregnancy doubled the risk of violent or persistent offending by their sons.<sup>29</sup>

### **Schooling**

It was observed that 54% of juveniles were not attending the school. School dropout rate was more in delinquent juveniles 15 (75%) as compared to those under care and protection 12 (40%). This finding was statistically significant (p value = 0.015). In a review by Mattison RE in year 2000, large percentages of children who drop out of school were characterized by chronic and serious academic and/or behavioral dysfunction. Many of these were present early in school careers under at least one category: excessive absenteeism, frequent disciplinary referrals and/or retention (serious academic failure).<sup>30</sup>

### **Temperament**

In the present study we have divided temperament into the three domains described by Thomas and Chess.<sup>31</sup> In our study, 46% juveniles had difficult temperament, 32% had easy temperament, and remaining 22% were found slow to warm. Sameroff et al had found in his study that difficult temperament was associated with lower socioeconomic status.<sup>32</sup> In this study easy temperament was seen in 22% juveniles under care and protection, more than that seen in juveniles under conflict of law (10%). Typically, a construct identified as difficult temperament has been used as a possible precursor to later antisocial behavior.<sup>33</sup> Cole and Zahn-Waxler stated that dys-regulated temperament facilitates the progression from early disruptive problems to conduct disorder. This was postulated to be through the difficulty with managing negative emotions such as anger.<sup>34</sup>

Jejurikar et al has also reported stealing as a major reason for admission to observation home for boys.<sup>21</sup> In a longitudinal study in three cities Rochester, Denver, and Pittsburgh, while describing the crimes by the delinquents an index called "Street Crimes" was used. It is an index that combines 13 serious forms of delinquency such as robbery, burglary, major theft, gang fights, and the like. These offenses are currently of great concern and have been shown in previous research to be of greater seriousness in the view of the public at large.<sup>35</sup> The pattern of crimes is changing with the urbanization in recent years.

Study sample included only detainees; it excluded the juveniles who were not detained because their charges were less serious, and thus they were immediately released from police station or detention centre. This might be the reason why there are no juveniles from middle and higher socioeconomic status, as they are more likely to get legal help immediately than those from the lower socioeconomic status. Despite these limitations our findings have implications for the mental health research and management of juvenile delinquency.

Further research into the course of behavioral problems of this population in juvenile justice system and needs for rehabilitation to be addressed. It is a well-known fact that India does not have enough specialists to manage mental and behavioral disorders.<sup>36</sup> Assessment of the adequacy of the mental health services to this population, and development and evaluation of interventions in this area is an immediate need. Better and multidisciplinary facilities with different programs and linkages with other correctional facilities need to be developed. Nevertheless efforts should be made to enhance training of more multidisciplinary mental health manpower for providing better mental health facilities under social justice system to these centers.

### **CONCLUSION**

Establishment of multidisciplinary mental health services at each juvenile center of India, for complete rehabilitation of the juveniles admitted there, under social justice system is immediately required.

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