

Magnitude and factors contributing school absenteeism among adolescents of Ujjain city

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Received – 26 December 2017

Initial Review – 21 January 2018

Published Online – 28 June 2018

ABSTRACT

Background: School absenteeism is prevalent in Madhya Pradesh and other states of India. Various psychosocial, domestic, and health-related factors have been implicated for absenteeism. **Objectives:** The objectives of this study were to determine the magnitude of school absenteeism and its contributing factors among adolescent students of Ujjain city. **Methods:** An observational study was conducted in government schools of Ujjain district. Students studying in 6th–8th standard between 11 and 14 years were interviewed using a predesigned questionnaire. The factors reported for school absenteeism were recorded. **Results:** A total of 1250 students were studying in the 6th, 7th, and 8th standard. Of these, 434 (34.7%) students had significant absenteeism >2 days/month. Frequent absenteeism (Group A, absenteeism >4 days per month) occurred in 388 (89.4%) and rest were infrequent absentees (Group B, absenteeism ≤4 days per month). Analysis of sociodemographic factors revealed significant influence of lower socioeconomic status (A=43.1% and B=28.2%; p=0.03), maternal illiteracy (A=19.3% and B=6.5%; p=0.004), paternal illiteracy (A=12.6% and B=0), rural background (A=23.2% and B=6.5%; p=0.031), and unskilled and semiskilled profession of the father (A=30.9% and B=8.6%; p=0.001) on frequent absenteeism. Helping the mother in the kitchen was the only social factor responsible for the significant absenteeism (A=44.0% and B=26.1%; p=0.02). Watching television (TV) was also reported as a cause of frequent absenteeism. Medical morbidities and school-related factors did not influence significant absenteeism. **Conclusion:** School absenteeism has a high prevalence in government schools of Ujjain district. Lower socioeconomic status, parental illiteracy, rural background, unskilled occupation, helping the mother in the kitchen, and watching TV resulted in frequent absenteeism.

Key words: Adolescents, Medical, Psychosocial, School absenteeism

School absenteeism results in adverse short- and long-term impacts in the form of academic deterioration, isolation from peers, family conflict, and financial and legal consequences, school dropout, delinquent behaviors, economic deprivation, social isolation, marital problems, and difficulty in maintaining employment [1]. School absenteeism lacks standard definition. Average absenteeism of more than 2 days per month was defined as significant absenteeism by Uppal *et al.* [2]. School absenteeism has been increasing in recent years and a recent report by the U.S. Department of Education identifies “chronic absenteeism” as a hidden educational crisis. Burden of chronic absenteeism has been reported to be 14% in this nationwide survey [3]. The average school absenteeism per child reported from a cross-sectional, school-based study conducted in three government schools in South Delhi was 10.2% [2]. School absenteeism has been reported to be high in states like Madhya Pradesh also.

According to Consortium for Research on Educational Access, Transitions, and Equity community and school surveys, 35% of children were absent from schools in Rewa and 47% in Dindori

on the day of the field visit [4]. It has been linked with various factors such as poor health, social factors, poor infrastructure, and difficult accessibility [4-7]. A better understanding of causative factors for school absenteeism is critical to implement the interventional strategies to achieve the goal of universal primary education. However, there is a paucity of literature on the comprehensive factors determining school absenteeism from Madhya Pradesh. Therefore, the present study was undertaken to evaluate the magnitude of school absenteeism and its contributing factors in Ujjain district of Madhya Pradesh.

MATERIALS AND METHODS

A cross-sectional school-based study was conducted in four government schools of Ujjain city which were chosen randomly. Absenteeism was studied among students of 6th, 7th, and 8th standard over a period of 1 year from April 2011 to March 2012. Schools were visited once every Monday. Any student absent in the prior week was interviewed. Students were categorized into significant absentees (absenteeism >2 per month) and occasional

absentees (absenteeism ≤ 2 per month). Data available only from significantly absent students were included in the final analysis. The study was approved by the institutional ethics committee.

There is no consensus on the definition of the significant absenteeism in the literature. We accepted average absenteeism for >2 days per month as significant absenteeism for the present study as in a study by Uppal *et al.* [2]. Significantly, absent students were further classified into frequently absent group (Group A, absenteeism >4 days per month) and infrequently absent group (Group B, absenteeism ≤ 4 days per month).

Adolescents of both the genders in the age group of 11–14 years studying in 6th–8th standard were assessed for significant absenteeism from school attendance register. Significantly, absent students were interviewed on a predesigned pro forma after informed consent. The causes of absenteeism were ascertained by school records, leave applications, and 1-week recall by the students. Poor school attendance due to late admission and those who changed the school during the study period were excluded from the study.

A predesigned questionnaire was used to collect the sociodemographic profile, psychosocial, medical, and school-related causes of absenteeism. A pilot study was done to identify the existing causes of absenteeism. Its results were discussed with faculties of Pediatrics and Community Medicine with thorough knowledge of the subject. After their comments, the questionnaire was redesigned and also translated in Hindi.

The sample size for the prevalence of significant school absenteeism in the present study was calculated by the formula, $Z^2 \times P(1-P)/d$. The expected prevalence, P was taken as 0.48 as reported by Uppal *et al.* [2], for 95% confidence level $Z=1.96$ (~ 2) and d, the allowable error margin was chosen as 10% of the expected prevalence, i.e., 0.048. Thus, a sample size of 96 was derived. However, we interviewed all 434 students with significant absenteeism who were absent for >2 days per month. Statistical analysis was done using SPSS version 16. Categorical variables are presented as proportions. Chi-square or Fisher's exact test was used to compare categorical variables. The prevalence of absenteeism, odds ratio, and p value of the risk factors of frequent absenteeism was calculated along with 95% confidence interval. $p < 0.05$ was considered statistically significant.

RESULTS

A total of 1250 students were studying in the 6th, 7th, and 8th standard. Of these, 434 students were included in the study as they were significantly absent (absenteeism >2 days per month). Overall, significant absenteeism was 34.7%. There were 286 (65.8%) males. Frequent absentees (absenteeism >4 days per month) were 388 (89.4%) constituting Group A and rest 46 (10.6%) were infrequent absentees (absenteeism ≤ 4 days per month) composing Group B. Sociodemographic factors such as rural background ($p=0.03$), studying in lower standard ($p < 0.001$), parental illiteracy ($p < 0.005$), and lower socioeconomic status ($p=0.03$) were significantly associated with frequent school absenteeism (Table 1).

Table 1: Sociodemographic profile of the study group

Parameters	Group A (n=388)	Group B (n=46)	p*
Sex			
Male	258 (66.5)	28 (60.8)	0.44
Female	130 (33.5)	18 (39.2)	
Standard			
6 th	160 (41.3)	6 (13.0)	<0.001
7 th	135 (34.8)	19 (41.3)	
8 th	93 (23.9)	21 (45.7)	
Religion			
Hindu	366 (94.3)	43 (93.4)	0.82
Others	22 (5.7)	3 (6.6)	
Maternal education			
Illiterate	75 (19.3)	3 (6.5)	0.004
School educated	241 (62.1)	30 (65.3)	
Graduate	63 (16.2)	8 (17.3)	
Professional	9 (2.4)	5 (10.9)	
Father education			
Illiterate	49 (12.6)	0	<0.001
School educated	224 (57.7)	22 (47.8)	
Graduate	94 (24.3)	11 (23.9)	
Professional	21 (5.4)	13 (28.3)	
Area			
Rural	90 (23.2)	3 (6.6)	0.031
Urban	298 (76.8)	43 (93.4)	
Occupation			
Unskilled	62 (15.9)	0	0.001
Semiskilled	58 (14.9)	4 (8.6)	
Skilled	190 (48.9)	25 (54.4)	
Semiprofessional	58 (14.9)	16 (34.7)	
Professional	20 (5.2)	1 (2.3)	
Family type			
Nuclear	144 (37.1)	13 (28.2)	0.23
Joint	244 (62.9)	33 (71.8)	
Socioeconomic status			
Upper	15 (3.8)	5 (10.9)	0.03
Middle	206 (53.1)	28 (60.9)	
Lower	167 (43.1)	13 (28.2)	

Group A - Frequently absent group, absenteeism >4 days per month. Group B - Infrequently absent group, absenteeism ≤ 4 days per month. *Chi-square test was used to compare the proportions

Medical morbidities (asthma, pain in abdomen, headache, cough, cold, and fever) cited by children as a reason for absenteeism are shown in Table 2. None of them had statistically significant role in frequent absenteeism (absenteeism >4 days per month). Table 3 summarizes the psychosocial factors implicated for school absenteeism in our study population. Adolescents frequently absented themselves to help their mother in the kitchen work. School- and environment-related factors as a cause of school absenteeism were reported by less than one-third of the absentees (Table 4). Watching television (TV) was significantly associated ($p=0.02$) with frequent absenteeism.

Table 2: Association of medical morbidities with significant absenteeism

Factors	Group A (n=388)	Group B (n=46)	OR (95% CI)	p*
Asthma	30 (7.7)	6 (13.0)	0.55 (0.21–1.42)	0.21
Pain abdomen	89 (22.9)	15 (32.6)	0.61 (0.31–1.19)	0.15
Headache	96 (24.7)	12 (26.0)	0.93 (0.46–1.87)	0.84
Cough and cold	102 (26.2)	17 (36.9)	0.61 (0.32–1.15)	0.12
Fever	107 (27.5)	17 (32.6)	0.65 (0.34–1.23)	0.18

Group A - Frequently absent group, absenteeism >4 days per month. Group B - Infrequently absent group, absenteeism ≤4 days per month. *Chi-square test was used to compare the proportions. OR: Odds ratio, CI: Confidence interval

Table 3: Psychosocial factors contributing to significant absenteeism

Factors	Group A (n=388)	Group B (n=46)	OR (95% CI)	p*
Bullying	13 (3.3)	4 (8.6)	0.36 (0.11–1.16)	0.08
Child labor	13 (3.3)	1 (2.2)	1.56 (0.19–12.2)	0.67
Breakup with friend	19 (4.8)	0	-	-
Fear of corporal punishment	20 (5.1)	0	-	-
Guest at home	34 (8.8)	0	-	-
Fear of being asked questions in the class	35 (9.0)	3 (6.5)	1.42 (0.41–4.81)	0.57
Mother illness	35 (9.0)	5 (10.8)	0.81 (0.30–2.19)	0.68
Father illness	47 (12.1)	3 (6.5)	1.98 (0.58–6.62)	0.26
School truancy	62 (15.9)	5 (10.8)	1.56 (0.59–4.10)	0.36
Low self esteem	81 (20.8)	12 (26.1)	0.75 (0.37–1.5)	0.41
Care taking of sibling	84 (21.6)	9 (19.5)	1.14 (0.52–2.44)	0.75
Fear to fail in examination	87 (22.4)	13 (28.2)	0.73 (0.37–1.46)	0.37
Prefer to study alone	142 (36.5)	17 (36.9)	0.99 (0.52–1.86)	0.96
Festival	145 (37.4)	21 (45.6)	0.71 (0.38–1.31)	0.28
Kitchen work	171 (44.0)	12 (26.1)	2.23 (1.12–4.44)	0.02

Group A - Frequently absent group, absenteeism >4 days per month. Group B - Infrequently absent group, absenteeism ≤4 days per month. *Chi-square test was used to compare the proportions. OR: Odds ratio, CI: Confidence interval

Table 4: Relationship between school- and environment-related factors and significant absenteeism

Factors	Group A (n=388)	Group B (n=46)	OR (95% CI)	p*
Subject fear	81 (20.8)	12 (26.0)	0.75 (0.37–1.5)	0.42
School change	32 (8.2)	6 (13.1)	0.6 (0.24–1.52)	0.27
Problem with medium of teaching	52 (13.4)	4 (8.6)	1.62 (0.55–4.72)	0.37
Excessive homework	122 (31.4)	16 (34.7)	0.86 (0.45–1.64)	0.65
Repeated tests	32 (8.2)	7 (15.2)	0.50 (0.20–1.21)	0.12
Coaching classes	58 (14.9)	4 (8.6)	1.84 (0.63–5.34)	0.26
Transport problem	55 (14.1)	4 (8.6)	1.73 (0.59–5.02)	0.31
Climate	63 (16.2)	10 (21.7)	0.69 (0.32–1.48)	0.35
Watching TV	82 (21.1)	3 (6.5)	3.84 (1.16–12.6)	0.02

Group A - Frequently absent group, absenteeism >4 days per month. Group B - Infrequently absent group, absenteeism ≤4 days per month. *Chi-square test was used to compare the proportions. OR: Odds ratio, CI: Confidence interval

DISCUSSION

Of 1250 students studying in 6th–8th standard of four schools of Ujjain city, only 434 significantly absent students (>2 days/month) were included in the study as rest were only occasionally absent. The prevalence of overall significant absenteeism (>2 days/month) in the present study group was 34.7%. Uppal *et al.* reported that 48% of the children absented themselves for more than 2 days in a month in government schools in Delhi [2]. School absenteeism reported from M.P. in the past includes 35% in Rewa and 47% in Rajnandgaon [4]. In a study conducted in

Lucknow, the incidence of school absenteeism was observed to be 70.9% at least once in preceding 3 months [8]. These differences in observation between various studies can be explained by the difference in the geographical and sociodemographic characteristics, settings of the study and methods of estimation of school absenteeism.

Among the sociodemographic parameters, lower standard, parental illiteracy, occupation, socioeconomic status, and rural background were significantly associated with frequent absenteeism. These factors have been found to affect absenteeism previously [4,9]. In a study from Tamil Nadu

in India, authors have found work to be the most common cause of absenteeism because there is economic pressure on the children to earn for the family. Better education improves family income which, in turn, makes fulfillment of basic needs easier ameliorating social pressure which keep the child away from schools [10,11].

Our observations showed higher absenteeism among males (66.5%) as compared to females (33.5%); however, it was statistically insignificant. These findings were consistent with the results of Ananthkrishnan *et al.* while other studies reported significantly higher number of males frequently absenting themselves from schools [2,11]. Absenteeism was significantly more common among students of lower grades of school as seen in the study by Uppal *et al.* [2]. This can be attributed to parental attitude and concerns toward the child, minor childhood illnesses, and exposure to adverse weather.

Parental education is an important determining factor in the attainment of education of their children. 19.3% of the mothers and 12.6% of the fathers of children in significantly absent group were illiterate. These results are similar to that of Uppal *et al.* [2]. High school absenteeism among rural children could be attributed to the longer distance to be traveled to reach the schools and poor transport facility.

Medical morbidities contributing to school absenteeism in the present study included asthma, pain abdomen, headache, common cold, and fever. Asthma leading to 22% of school absenteeism has been reported by Wekke *et al.* [12]. Common cold and lower back pain are other morbidities reported as causes of school absenteeism [13,14]. Various psychosocial factors have been reported as a cause of school absenteeism. The most frequent psychosocial factors resulting in school absenteeism were examination phobia, anxiety, anger, fear, and learning disability as reported by Kamal *et al.* in a study from Doha [15]. In our study, frequent absenteeism resulted from engaging children in the kitchen work. We have also found frequent absenteeism resulting from a child's desire for watching TV. Similarly, Hansen *et al.* have also reported association between excessive watching TV among children and adolescents and severe school absenteeism [16].

The study evaluates a wide range of factors responsible for school absenteeism such as sociodemographic, medical, psychosocial, and school- and environment-related factors and their correlation with frequent absenteeism. However, there were few limitations of this study. We have ascertained the cause of school absenteeism by school records, leave applications, and 1-week recall by the students. Parents were not interviewed directly which would have better delineated the causes of absenteeism.

CONCLUSION

School absenteeism has a high magnitude in government schools of Ujjain city. Frequent school absenteeism was associated with lower socioeconomic status, parental illiteracy, rural background, lower class, and unskilled and semiskilled profession of the father. Children frequently absented themselves from school for watching TV and assisting mother in the kitchen work in the present study.

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Funding: None; Conflict of Interest: None Stated.

How to cite this article: Eske GS, Singh P, Nigam K, Dhaneria M. Magnitude and factors contributing school absenteeism among adolescents of Ujjain city. *Indian J Child Health*. 2018; 5(5):368-371.

Doi: 10.32677/IJCH.2018.v05.i05.013