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Clinical and Sociodemographic factors affecting School Absenteeism among children of age 8-12 years in Chennai

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ABSTRACT:

1.1 Background: *School absenteeism refers to the recurring or chronic absence of students from school. The latest AESR report (2021-2022) also shows that as against the enrolment rate of 98 percent at primary and upper primary levels for children aged 6 to 14 years in India, the attendance patterns have remained stagnant at close to 72 percent, varying 50-60 percent in states such as Bihar, Madhya Pradesh and West Bengal, to 86-90 percent in states such as Tamil Nadu, Karnataka and Maharashtra (1). A range of factors can lead to absenteeism, including health-related issues, family responsibilities, difficulties with transportation, lack of interest or disengagement from school activities, experiences of bullying, mental health problems, and various socioeconomic challenges. Several studies show that chronic absenteeism has deleterious and long-lasting effects on the students 'learning and commitment.*

Considering the importance and large prevalence of school absenteeism, a descriptive study was conducted to assess the point-prevalence of absenteeism and the various clinical and sociodemographic factors associated with chronic absenteeism among children aged 8-12 years.

1.2 Objectives: *This study aimed to evaluate the various clinical and sociodemographic factors that are associated with absenteeism among school going children of age group 8-12 years. In addition, study also tries to understand the correlation between school absenteeism and scholastic performance.*

1.3 Methods: *The study population included about 647 school going children aged 8-12 years, from different schools in Chennai. A semi-structured questionnaire and interview-based survey was administered to gather the socio-demographic data and the various associated risk factors that were under study. The data collected was analysed using SPSS software and 'p 'value was calculated to prove statistical significance.*

1.4 Results: *The prevalence of absenteeism in our study was found to be about 4.9% (95% CI). Increased likelihood of School absenteeism was associated with lower maternal literacy levels, poor socio-economic status, larger family size, and male gender. Lower likelihood of absenteeism was linked to female gender.*

1.5 Conclusions: *The study's findings show that school absenteeism may be due to the interplay between several factors like medical illnesses, socio-economic factors, literacy levels of the parents. Addressing school absenteeism requires understanding these underlying causes and implementing targeted interventions to support students in keeping regular attendance. Effectively reducing school absenteeism requires a comprehensive, multifaceted strategy that addresses its root causes and promotes a supportive educational environment.*

I. INTRODUCTION:

School absenteeism stands as a pressing concern with profound implications for students, educational institutions, and broader society. School absenteeism denotes the habitual or chronic non-attendance of students in educational settings. This study uses Kearney et al ‘s definition of problematic absence: (1) missing more than 25% of school time over the past two weeks; (2) having significant difficulty attending classes for at least two weeks, with substantial interference in daily routines; or (3) having more than 10 days (or 15%) absence within any 15-week period during the school year.

It encompasses both, justified and unjustified absences and is typically quantified by the number of days a student remains absent within a specified period, such as a semester or academic year. It is a key indicator of potential school drop-out, which can lead to various social, economic, and health challenges in adulthood. Studies show that the causes of school absenteeism span various domains, including personal or psychological, parental and familial, school-related, and environmental factors.

This study aims to delve into the roles and relative impacts of different risk factor associated with school absenteeism, aiming to foster a deeper comprehension of how these factors or risk contexts contribute to absenteeism.

2.DATA AND METHODS:

3.1 Data Sources:

The study uses data collected from 647 students, belonging to the age group 8-12 years and their parents using a semi-structured questionnaire and interview-based survey. The data was collected over a period of 18 months. The data collected provided qualitative information on the students ’socio-demographic characteristics, household characteristics, school-level information, academic performance, health performance.

3.2 Data Variables:

This study identifies the several factors affecting school absenteeism and their impact on the learning outcomes of students.

The term ‘absence ’here refers to the number of days missed from school in a calendar month and not the number of hours that a child did not attend the classes in a day. Absence of 10 days (or 15%) in a 15-week period in a month is considered in our study as significant absenteeism. This is the key test variable.

The key test variable has been tested against various explanatory variables, broadly classified into 4 categories: socio-demographic characteristics, household characteristics, school characteristics and child-intrinsic characteristics.

The demographic characteristics included the ages of the children, gender (female or male), the grades the children belonged to.

Under the household characteristics, the birth order of the children; the highest education of both mother and father – the educational attainments have been categorised as ‘Graduate’, ‘High school/Diploma’, ‘Illiterate’, ‘Primary ’and ‘Secondary’; the occupation of the father ‘–Professional’, ‘semi-professional’, ‘semi-skilled’, ‘skilled’, ‘unskilled ’and ‘employed’; family size starting with 3 members upto 7 members;

The social characteristics that were considered were place of residence (rural and Urban), socio-economic status was objectively classified using Modified Kuppuswamy SES scale into 5 SES classes

The last category of child-intrinsic characteristics included information related to the child’s physical and mental health. The indicators studied were the common medical problems due to which the child absents from school, scholastic performance (based on pass or fail in examinations), whether the child enjoys at school, whether the child is punished at school.

3.3 Methods and Techniques:

The analysis has been carried out in two stages, as shown:

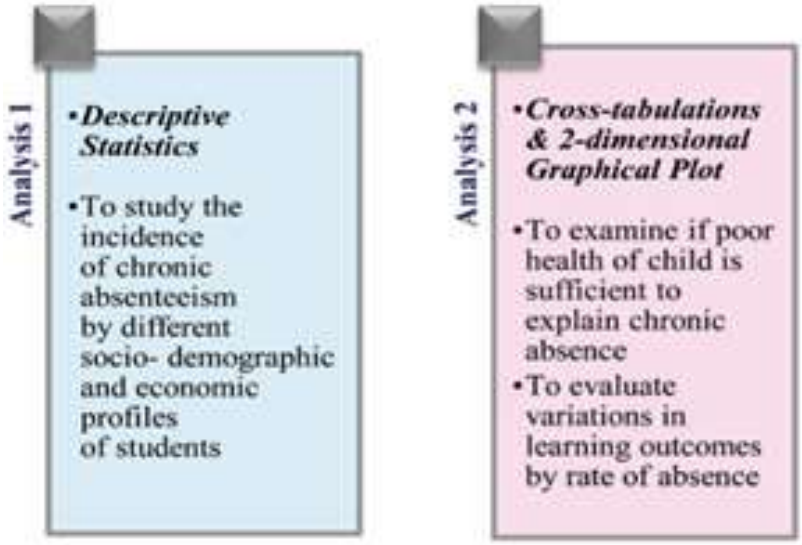

Figure 1

3.4 Data limitations:

The study data has the following limitations that restrict the results – (i) data was collected only from children aged 8-12 years, (ii) certain factors such as climatic changes, sudden unforeseen events in the family, child's involvement in labour activities to support the family were not taken into account and could have confounding effects on the results.

3. RESULTS:

4.1 Incidence of Absenteeism

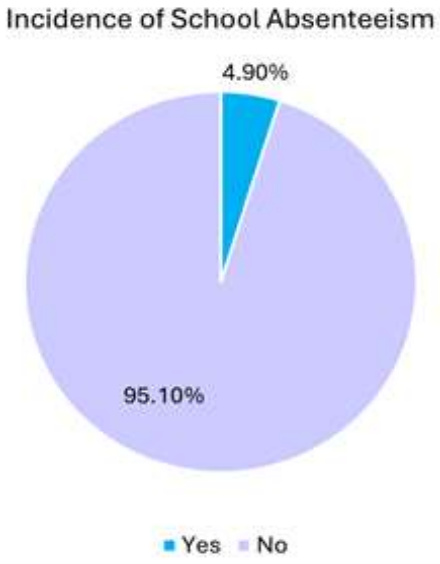

Figure 2

4.3. Association between explanatory variables and the School Absenteeism

S.I No	Baseline Variables	Incidence Of Absenteeism		Total	P Value
		Yes N=32 (%)	No N=615 (%)		
	Age (In Years)				
	8-10	17 (53.1)	342(55.6)	359	0.897
	10-12	15 (46.9)	273(44.4)	288	
	Gender				
	Male	22 (68.8)	310(50.4)	332	**0.042***
	Female	10 (31.2)	305 (49.6)	315	
	Birth Order				
	1	20 (62.4)	202 (32.8)	222	**0.002***
	2-3	10 (31.5)	335 (54.5)	345	
	4-5	2 (6.1)	78 (12.7)	80	
	Residence				
	Rural	21 (65.6)	303 (49.3)	324	0.071
	Urban	11 (34.4)	312 (50.7)	323	
	Mother Education				
	Illiterate	18 (56.3)	125 (20.3)	143	**0.002***
	Literate	14 (43.7)	486 (79.7)	504	
	Father Education				
	Illiterate	6 (18.8)	90 (14.6)	96	0.523
	Literate	26 (81.2)	525 (85.4)	551	
	Family Size				
	<4	13 (40.6)	232 (37.7)	245	**0.014***
	>4	19 (59.4)	383 (67.3)	402	
	Socio-Economic Status				
	Class -1	8 (25)	142 (23.1)	150	0.935
	Class -2	14 (43.8)	294 (47.8)	308	
	Class -3	10 (31.2)	163 (25.6)	173	
	Class -4	1(3.1)	15(2.5)	16	

Table 1

**P value < 0.05 is considered statistically significant*

The present study concluded that male children are prone to school absenteeism than female children, the incidence among boys being 68.8%. Our study also found lower literacy levels in the mother, larger family size and medical illnesses had significant association with school absenteeism. Our study did not show any significant association between socio-economic status and school absenteeism.

4.4. Association between Medical Complaints and School Absenteeism

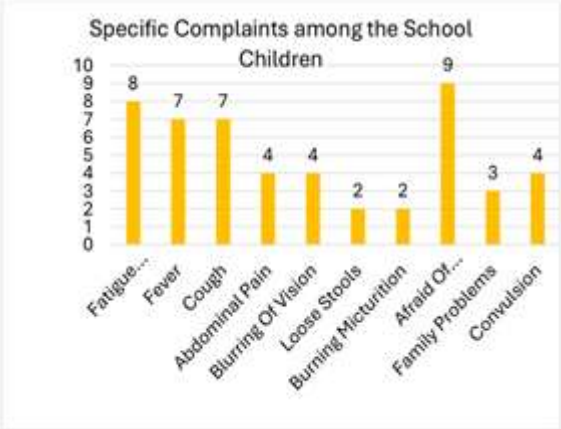

Figure 3

	Incidence Of Absenteeism			
Medical Problems	Yes (N=32)	No (N=615)	Total	P Value
Yes	17(34.7)	32(65.3)	49	**<0.0001***
No	15 (2.5)	583 (97.5)	598	
Total	32	615	647	

Table 2

**P value < 0.05 – considered statistically significant*

The **Figure 3** shows the specific complaints the the children complained of while absenting themselves from school. Fatigue/Tiredness and associated pallor was the most common medical cause for absenteeism in the children studied.

It was found that there was a significant association ($p<0.05$) between medical complaints and school absenteeism.

4.5. Association between scholastic performance and absenteeism

	Incidence Of Absenteeism			
Results	Yes (N=32)	No (N=615)	Total	P 6Value
Pass	27 (4.2%)	609(95.8%)	636	**<0.0001***
Fail	5 (45.5%)	6(54.5%)	11	
Total	32	615	647	

Table 4

	Incidence Of Absenteeism			
Results	Yes (N=32)	No (N=615)	Total	P Value
Pass	27 (4.2%)	609(95.8%)	636	**<0.0001***
Fail	5 (45.5%)	6(54.5%)	11	
Total	32	615	647	

Table 5

**P value < 0.05 – considered statistically significant*

There was a significant association between poor scholastic performance i.e., Fail results in the final examination and school absenteeism

4. DISCUSSION

In our study, students who were absent for more than 15% of the working days are considered as students with significant absenteeism. Male sex, parent's education levels, socioeconomic status of the family, birth order, truancy, school load and phobia, skipping school for family issues were found to be the most significant independent causative factors associated with school absenteeism.

Incidence: The incidence of absenteeism in our present study is 4.9 %. Examination of literature done shows a wide range of incidences of school absenteeism ranging from 4.7% to 17.8%. [2, 3, 4]

This wide range of incidence of absenteeism is most likely due to the varying types of cross-sections taken for the study and the differences between the subgroups in terms of geography, education practices, cultural and religious factors.

We shall discuss some of the pertinent aspects learned in the present study below:

Age: In our study, among the number of absentees, children aged 8-10 years i.e., children in primary school showed higher incidence of absenteeism, about 53.1%. This is like the finding in study by Ananthakrishnan, et al which concluded that children in primary school were more likely to miss school, about 59.3% [5]). Younger children may be more likely to skip school because of illnesses and school skipping at an early age appears to have manifold consequences, one of the important ones being that absenteeism patterns generally start at an early age [6,7]). Children who start skipping school early on are more likely to skip school afterwards as well. That is why Schoenberger (2012) said that absenteeism in primary school is a very good prognosticator of middle-school absenteeism [8].

Gender: The present study concluded that male children are prone to school absenteeism than female children, the incidence among boys being 68.8%. The finding can be correlated to studies conducted in India and abroad. Sreenivas et al has similar findings in his study done in India [9]. Truancy was more among boys in our study. The studies done show that boys are more likely to have behavioral problems like conduct disorders which puts them at risk for school suspension/withdrawal. Boys are more prone to truancy their female peers [10].

Birth order: The present study concluded that first born children are more likely to miss school, incidence being 62%. The studies correlating birth order with school absenteeism are ambivalent. Studies which say that first born or elder children are more likely to miss school mentioned reasons like elder siblings staying back at home to take care of younger siblings and sick family members; older children contribute to household income [11]. On the other hand, some studies say that younger children in the family are more likely to miss school because parents find it difficult to take care of all the kids at same time effectively. Middle order children receive less attention from parents and are more prone to truancy [12].

Mother's literacy status: In our study, children whose mothers had lower literacy levels were more likely to be absent from school, absenteeism being about 56.3%. This emphasizes the importance of maternal educational status for proper school attendance. Similar finding was noted in a study by Farah and Upadhyay (2017) who found that mothers of 52.6% of children who absented themselves or dropped out had not completed primary school level education [13].

Socio-economic status: With the present study we were not able to find the association between poor socioeconomic status of the family and school absenteeism. This is probably due to the relatively smaller sample size and the short study period. However, several studies have concluded that poor socio-economic status is strongly associated with school absenteeism. Children coming from poor families, living in poor housing setups with lower parental education levels were more likely to miss school [14].

Family size: In the present study we found that larger family size is linked to absenteeism. Several studies linking socioeconomic status, family size and environment have similar findings. For instance, a study done in Colombia university by Romero found that children from large families i.e., those who had four or more siblings missed school by atleast one more day than children from smaller families. [15]

Medical illness: In the present study, 34.7% of children were absent because of medical illnesses. A similar finding was noted in a study conducted in India, where the incidence of absenteeism due to medical illness was about 58%. [16]

School Absenteeism Affecting Academic Performance:
In the present study, among the children who failed in their exams, 45.5% of them were absent for more than 15% of the working days which is significant.

Looking at this another way, 95.8% of the children with regular attendance has passed their exams showing direct link between the pass percentage and regular attendance to school in these children has been found.

The same has been corroborated in several studies. For example, Keppens found that students with unexcused absenteeism are almost 3 times more likely to fail in their annual exams. [17]

The studies done by Gershenson et al., 2017, Kirksey 2019, Klein et al., 2022 have shown that missing school, even for a limited number of days and regardless of the reason, negatively affects students' student's test performances and grade point average. [18,19,20]. Jain C and Jain R (2023) found that acquisition of different skills like reading, writing and mathematics progressively decreased with the increased number of absent days among the students. [21]

Though it is clear from the present study that absentees have more chances of failing their annual exams, the study is limited in its extent to see if a child has achieved all the necessary academic skills required for a class, in those who have significant absenteeism but have cleared their exams.

Other factors considered in the study: McShane et al. found that the incidence of family conflicts - 43% and separation - 21% in families contribute to school absenteeism. But our study varies with this study indicative of better structured families among the study participants. [22]

The causes for school absenteeism in our study exhibited insignificant percentages with mild illnesses, family problems, family functions amounting to meagre percentages of less than 1%.

In our study 92.3% of the school children had no major complaints contributing towards school absenteeism. This is in coordination with the findings of the study conducted by Sarathy et al who found that children with lesser percentage of the hindrance variables were more prone to attend school on a regular basis.

LIMITATIONS OF THE STUDY:
This study has limitations, notably the inability to distinguish between students with school refusal, truancy, or both, preventing group comparisons. Additionally, factors like community poverty and risky health behaviors, which are known to impact absenteeism rates, were not extensively assessed, including these variables could have provided more clarity. Nonetheless, our objective was to empirically examine how specific risk categories contribute to school absenteeism by developing a model encompassing all major psychosocial factors.

5. CONCLUSION

From the findings of the study and through the entire process we can understand that regular absences from school have detrimental and far-reaching short- and long-term implications on academic achievement, adult graduation rates, adult income, life expectancy social functioning, and health.

Overlapping medical, individual, family, and social factors—such as mental health issues, bullying, perceived insecurity, other family members' health issues or needs, inconsistent parenting, a hostile school environment, financial hardship, and unreliable transportation—seem to be the main causes of school absenteeism.

Moreover, our findings reveal that these risk factors behave differently and their relative significance changes significantly when considered collectively rather than individually. This suggests that risk factors should be analyzed in conjunction with one another.

For practitioners focused on reducing school absenteeism, it is crucial to consider both risk and protective factors to comprehensively understand, prevent, and address the issue. For researchers, it is essential to recognize that risk factors do not operate in isolation; studying them in relation to each other will likely lead to models with greater ecological validity.

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