



EVALUATION OF THE HEALTH PROFILE OF SCHOOL DROPOUTS OF URBAN  
SLUM INHABITANTS IN MAHARASHTRA

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**ABSTRACT**

**Background and Objective:** The benefits that accrue to a country by having a literate population are multi-dimensional; it becomes imperative to study the determinants or reasons of school dropouts. Therefore the present study was undertaken to find out the magnitude of the health problems of school dropouts in an urban slum in a metropolitan city. **Methods:** This study uses a community based descriptive cross-sectional design to identify school dropouts, their health problems, and comparison of these factors with non-school dropouts conducted in an urban slum area after the informed consent from all the participants. Descriptive analysis for socio-demographic factors in dropouts was done using Univariate analysis. P value less than 0.05 was the level of significance. **Result:** It was evident that the nutritional status of respondents during health check up exhibited a significant difference ( $p < 0.05$ ) when compared to the normal comparison group. The comparison of history of recurrent illness in respondents did not show any significant difference between two groups.

**Conclusion:** In order to minimize the school dropouts there should be a regular medical checkup of children so that the parents are satisfied that their child is being taken care of in the school.

**Keywords:** Health profile, School dropouts, Urban

**INTRODUCTION**

School dropouts are a global problem, says a newly-launched international campaign group, the NDPC, the National Dropout Prevention Centre International, which also states that a rejection of school by youngsters has become "endemic" in many education systems across the developed world. And such an international problem could most effectively be tackled by considering experiences from other countries.

Globally, 609 million primary aged children are enrolled in school. The global primary net enrolment ratio (NER) increased from 84% in 1999 to 89% in 2006. But there are still around 75 million primary school age children who are not enrolled in school. Seven out of ten of these children live in sub-Saharan Africa or South and West Asia<sup>1</sup>. The world development indicators have revealed that about 130 million primary school-age children in the developing countries are out of school - almost 21% of the total primary school age population (625 million). Out-of-school status is a function of both dropping out and of having never enrolled or attended school. The out-of-school population with ages between 5 – 14 years in the least developed countries averages about 40% (World Bank report, 2000)<sup>2</sup>.

In United States, during October 2000 there were 3.8 million young people over the age of 16 who had not completed high school, representing 10.9% of the 16 to 24 year old population. Surveys of school disaffection in the United States have found that among the reasons cited for dropping out are not liking school, not getting on with teachers or other students, academic failure and pregnancy. The second United Nations Millennium Development Goal is to achieve Universal Primary Education, more specifically, to "ensure that by 2015, children everywhere, boys and girls alike will be able to complete a full course of primary schooling". Increasing girls' education is one of the principal strategies identified in the document for achieving universal primary school completion.

In India, a low school completion rate is one of the biggest threats to human development, it is imperative to find ways to reduce this and to do so one must examine the potential risk factors for the high dropout rate. High dropout rates are a critical problem in the country. There is a large difference between the number of children who enroll in school, or have ever attended school and the number of children who actually complete 14 years of schooling.

Despite the recent trends toward high rates of obesity and health related problems for youth there remains a substantial research base that identifies physical health as foundational to the overall health of young people. Yet in spite of this extensive research and knowledge about the importance of physical health we continue to develop educational policies, regulations, curriculum instruction and graduation requirements that neglect the physical health of students<sup>3</sup>. While there is frequent reference to the importance of physical health needs as foundational for learning, there is little research on school dropouts that incorporates or investigates physical health status and its relationship to the phenomenon of school dropout<sup>4</sup>.

Since the benefits that accrue to a country by having a literate population are multidimensional, it becomes imperative to study the determinants or reasons of school dropouts. Therefore the present study was undertaken to find out the magnitude of the health problems of school dropouts in an urban slum in a metropolitan city as surveys indicate that majority of the dropouts belong to poorest and least developed areas of the country especially backward rural areas and urban slums.

## MATERIALS AND METHODS

This study uses a community based descriptive cross-sectional design to identify school dropouts, socio-demographic profile, and a comparison of these factors responsible for school dropouts with non-school dropouts conducted in an urban slum area after the informed consent from all the participants. This study was conducted from July 2008 to October 2009 after the institutional ethical clearance.

In this study, multistage random sampling procedure was used. In first stage, amongst the different colonies, colony A was selected for study by simple random method. In second stage, out of 70 plots, 20 plots were selected by random sampling by using numbers allotted to each plot. In third stage, house to house survey was conducted. The first house in the plot was the starting point (as per house no. allotted by Municipal Corporation). From each plot 10 houses were selected. The house in which subjects in the age group (10-21 yrs.) were found was included in sample. After initial interview, the respondent was classified as either dropout (study group) or non-dropout (comparison group) and accordingly pro-forma was filled. If in a sampled house more than one individual in the given age group were present, only one individual was interviewed to avoid duplication as study involves assessment family background and socioeconomic factors. Respondents and their parents were interviewed separately to avoid influence of one on the other.

## STUDY POPULATION

Population of colony A = 49,150 (as per the Census of India, 2001). Colony A is divided into 73 plots, each plot comprising of 120 households. Three plots are unoccupied by households as 2 plots are occupied by maternity home and 1 plot by garden. There are in all 8400 households in colony A. Each plot is surrounded by an open drainage system (Nala) and a cemented road. Each plot comprises of two rows of 60 households each (Total 120 households) with entrances in opposite directions. There is a common public latrine (Sulabh Shauchalaya) for every 4 plots located in the centre at the junction of the cement road. The household receive water supply from urban local body tap whereas some households which do not have tap connection buy water at Rs.150-200 per month. Maximum houses are of pukka type with a tiled or cemented floor, brick walls plastered with cement and a cemented floor. Most of the households have a single door and a single window. The people living in this area are of mixed communities and religions. Majority of them being muslims followed by Hindus. Majority of them have migrated in search of jobs or to earn a livelihood. A large proportion migrating from Uttar Pradesh, Bihar and Madhya Pradesh reside in this area since many years and often visit their native places during off seasons (days when no work is available).

Regarding occupation, majority of people are daily wage earners or laborers, mechanics or auto-rickshaw owners. They are also involved in small-scale business viz. zari work, electronic work, government or private jobs etc. Some of them make ornaments; get contracts from industries for embroidery & zari work.

Subjects in the age group 10-21 years and who had left the school at any time before the completion of tenth standard were included. In the comparison group, the subjects in the 10-21 years age group and who had completed tenth standard or currently perceiving education were chosen.

The study was carried out in the following phases:

**Phase I:** The area was surveyed with the help of community health workers. Feasibility of the study was assessed.

**Phase II:** A pilot study was carried out by using a semi-structured questionnaire the purpose of which was to test the feasibility of the study and to decide the structure of the questionnaire. This partially structured questionnaire was used for interviewing 30 school dropouts and their parents/ guardians residing in the same area to determine the reasons for dropout and the activities in which they have since engaged. The data was evaluated and reconstruction of questionnaire was done. A separate questionnaire was prepared after making minor changes in the questions which was used for the comparison group.

**Phase III:** During the pilot study, it was observed that the respondents were reluctant to talk on certain matters. Some males were not revealing everything when asked about their present earning status while some girls did not reveal the actual reason for dropping out of school. Thus, there was a need to build up an initial rapport with the respondents so as to gain their confidence and get proper answers to the asked questions. So, the help from Medical social workers (MSWs) and community health volunteers (CHVs) from health post was sought. They then accompanied during house to house visit i.e. at the time of actual data collection. During the house visit, face to face personal in-depth interviews were conducted with the help of the pre-tested semi structured questionnaire. The participants were explained about the purpose of the study. Initial rapport development ensured the truthfulness and sincerity of the answers.

In spite of the rapport building, some respondents were not showing interest, gave fake answers and ultimately showed their unwillingness to participate in the study. Such respondents were not included in the study. The average time taken to complete each interview was 15-20 minutes. The parents were also interviewed separately to know their perspectives about reason for dropout and desire for further education. A comprehensive health check up was also conducted after interview for all respondents. A total of 200 respondents in age group 10-21 yrs were interviewed. Out of 200 respondents, 98(49.0%) were identified as school dropouts and included in study group whereas remaining 102(51.0%) were included in comparison group. The data so collected was compiled and analyzed.

**Statistical analysis:** It was done by using SPSS 16 software. One way ANOVA was used for comparing the health profile of dropouts with comparison group. P value less than 0.05 was the level of significance.

## RESULTS

A total of 200 respondents in age group 10-21 yrs were interviewed. Out of 200 respondents, 98(49.0%) were identified as school dropouts and included in study group whereas remaining 102(51.0%) were included in comparison group. Therefore prevalence of school dropout in the study area was 49.0%.

A comprehensive health check up was conducted after interview for all respondents.

Out of 200 respondents examined, 122(61.0%) had no complaint about health. Among those having some complaints, most common were fever (13.0%), cough/cold/sore throat (11.5%), worms in stool (8.0%), eye (7.5%) and ear (6.5%) complaints, toothache (6.0%), abdominal pain (6.0%) and itching in groin (6.5%) (Table-1).

On examination, anemia/ vitamin deficiencies (35.5%), dental caries (12.5%), acute respiratory infections (11.5%), worm infestations (8.0%), STI / RTI (7.5%), Scabies (5.0%), ear (7.0%) and eye infections (5.5%) were some of the common morbidities. Out of 200 respondents, 102(50.1%) were without any significant morbidities (Table-2).

Table-3 shows the nutritional status of all 200 respondents. It was evident that more number of underweight respondents belonged to dropout group (60.2%) as compared to comparison group (36.3%). The nutritional status (Body Mass Index) of respondents during health check up exhibited a significant difference ( $p < 0.05$ ) when compared to the normal comparison group (Table-3). The difference was statistically significant. The comparison of history of recurrent illness in respondents did not show any significant difference between two groups (Table-4).

Table-1: Chief complaints given by respondents during health check up of school dropouts of urban slum inhabitants in Maharashtra.

CHIEF COMPLAINTS	DROPOUT GROUP (N=98)	COMPARISON GROUP (N=102)	TOTAL (N=200)
Fever	12	14	26
Cough / cold / sore throat	8	15	23
Abdominal pain	3	9	12
Loose motions	2	6	8
Worms in stool	4	12	16
Burning micturition	4	3	7
White discharge PV	6	2	8
Bleeding PR	2	0	2
Earache / Ear discharge	4	9	13
Eyeache / Lacrimation	9	6	15
Headache	6	1	7
Toothache	3	9	12
Itching in groin	9	4	13
Itching over external genitalia	6	2	8
Itching all over body	4	9	3
No complaints	59	63	122

Table-2: Morbidities in respondents during health check up of school dropouts of urban slum inhabitants in Maharashtra.

MORBIDITIES	DROPOUT GROUP (N=98)	COMPARISON GROUP (N=102)	TOTAL (N=200)
Acute respiratory infection	8	15	23
Ear infections / Ear wax	5	9	14
Eye infections	5	6	11
Skin infection	1	3	4
Scabies	3	7	10
Worm infestation	4	12	16
Seizure disorder*	1	1	2
Tuberculosis*	4	1	5
Leprosy*	1	0	1
Typhoid*	3	1	4
STI / RTI	6	2	8
Urinary tract infection	4	3	7
Rheumatic heart disease**	2	1	3
Dental caries	8	17	25
Allergic disorders	4	1	5
Hemorrhoids / piles*	2	0	2
Malaria	5	2	7
Anemia / Vitamin deficiency	29	42	71
No morbidities	49	53	102

\* Diagnosed earlier and taking treatment

\*\* Diagnosed earlier and taking penicillin prophylaxis

STI / RTI – Sexually transmitted infections / Reproductive tract infections

**Table-3: Nutritional statuses (body mass index) of respondents during health check up of school dropouts of urban slum inhabitants in Maharashtra.**

		Group		Total	P Value
		Dropout	Comparison		
<b>NUTRITIONAL STATUS (BMI)</b>	<b>Normal</b>	37 (37.8%)	62 (60.8%)	99 (49.5%)	p<0.05 ( $\chi^2 = 11.48$ , DF=2)
	<b>Underweight</b>	59 (60.2%)	37 (36.3%)	96 (48.0%)	
	<b>Overweight</b>	2 (2.0%)	3 (2.9%)	5 (2.5%)	
<b>Total</b>		<b>98</b> <b>(100.0%)</b>	<b>102</b> <b>(100.0%)</b>	<b>200</b> <b>(100.0%)</b>	

**Table-4: Comparison of history of recurrent illness in respondents of urban slum inhabitants in Maharashtra.**

		Group		Total	P Value
		Dropout	Comparison		
<b>HISTORY OF RECURRENT ILLNESSES</b>	<b>Yes</b>	6 (40.0%)	9 (60.0%)	15 (100.0%)	p>0.05 ( $\chi^2 = 0.53$ , DF=1)
	<b>No</b>	92 (49.7%)	93 (50.3%)	185 (100.0%)	
<b>Total</b>		<b>98</b> <b>(49.0%)</b>	<b>102</b> <b>(51.0%)</b>	<b>200</b> <b>(100.0%)</b>	

## DISCUSSION

This was an epidemiological study of health profile and risk factors associated with school dropouts and their comparison with non dropouts. Out of 200 respondents examined, 61.0% had no complaint about health. Among those having some complaints, most common were fever (13.0%), cough / cold / sore throat (11.5%), worms in stool (8.0%), eye (7.5%) and ear (6.5%) complaints, toothache (6.0%), abdominal pain (6.0%) and itching in groin (6.5%). Out of 200 respondents, (50.1%) were without any significant morbidity. On examination, anemia/vitamin deficiencies (35.5%), dental caries (12.5%), acute respiratory infections (11.5%), worm infestations (8.0%), STI / RTI (7.5%), scabies (5.0%), ear (7.0%) and eye infections (5.5%) were some of the common morbidities. The comparison group, since going to school, the health morbidities and malnutrition will be diagnosed at early stages as they are covered by school health services regularly but in dropouts it is difficult as they are not covered under any regular health services. Hence, there was no significant difference between two groups with respect to history of recurrent illnesses in respondents. Our results are in line with the results of other studies<sup>(5-8)</sup>.

In our survey, respondents quoted other reasons like recurrent illnesses / chronic illness, migration, peer pressure, disputes between parents, disaster (earthquake in Gujarat cited as a reason by migrant), lack of access to the school and beating or scolding by teacher. Since the individual number was less, all these factors were grouped as personal factors responsible for dropping out<sup>9</sup>. There was a doubt regarding the truthfulness of answers in this group, most of them were males and were giving careless answers and in doing so, might be blaming teachers and citing social causes<sup>10</sup>. As per the parents perception very few were dropped out due to the above reasons.

In the present study, Out of 98 dropouts, 22.4% gave the history of failure or gap due to illness, migration, family event, of which 77.3% were males. When the failure or gap in the school compared with non dropout group, there was no significant difference between two groups.



This indicates lack of motivation among the dropouts. This translates into boredom, lack of interest, a perception that what the school offers is irrelevant to their present lives as well as their future aspirations. Disaffection is most frequent among adolescent boys for whom the attractions of life outside school as well as the necessity to earn money are strong. These observations were supported by other studies<sup>(11, 12)</sup> which revealed that 40% children had dropped out due to lack of interest in studies<sup>(13)</sup>.

Majority of those dropouts reported poverty, personal factors and repeated failure were found to be doing nothing, whereas almost all who reported no interest or household chores as the antecedent were actually found to be engaged in wage labor and household chores. Unlike the dropouts, the parents exhibited no interest in school, school irregularity, peer pressure and other factors as the main antecedents for their dropout. Parents who perceived the antecedents of dropout to be no interest in studies, family poverty, and household chores were involved in subsequent activities as wage labor and household chores.

From our observations, we recommend to have a counsellor appointed at the school, who would be responsible to further tackle the case. The counsellor needs to be friendly with the student and he/she should also develop good rapport with the parents, so that he/she can discuss the problem with them. The counsellor can visit their homes and find out the main reason for the problem and thereby also counsel the parents. Also counsellor can provide information regarding various government schemes for poor students. A teacher can himself play the role of counsellor.

## CONCLUSION

In order to minimize the school dropouts there should be regular medical checkup of children so that the parents are satisfied that their child is being taken care of in the school.

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