DRAFT

FOUNDATION FOR SUSTAINABLE HEALTH IN INDIA

Safe School Project Study Report

Authors: Dr Sathyanarayana TN, Dr Biswamitra Sahu, Dr Anupama Shetty, Mr Chander J.

Abbreviations

FSHI-Foundation for sustainable health India

SSP-Safe school project

SDQ-Strength and Difficulty Questionnaire

NGO-Nongovernmental organisation

WASH-Water and Sanitation and hygiene

WHO-World Health Organisation

Table of Content

Figures

Tables

1 Executive Summary

The safe school survey in two taluks of Bengaluru rural was conducted among schoolchildren aged 13-16 years attending grades 8-10th class. The survey was undertaken to assess school level and children level characteristics. We have undertaken survey of entire class of all the chosen government (14) and private schools (14). Totally 6153 children were part of the study. Students anonymously self-administered questionnaire covering demographics (age, gender), nutritional status, mental health and emotional status, physical activity, dietary, tobacco and alcohol.

The key findings from the survey are as follows:

Nutritional status: One of key striking finding is 1 in every 10 children goes to school hungry most of the time or always because of lack of sufficient food in their homes. A much higher proportion of students (62%) were measured to be underweight. On the other hand, the problem of overweight/ obesity also seems to be emerging, with 8 % and 1% of students measured to be overweight and obese, respectively. Further, mild anemia is reported among **18 percent** of adolescents. Moderate anemia is reported among **7 percent** of the study participants and severe anemia among 0.5 percent.

Risky dietary behaviours and limited physical activity: About 40% of the students reported drinking carbonated soft drinks one or more times per day and a similar proportion (45) reported eating junk food on two or more days in the past 7 days especially in private schools. On the other hand, only around 20 % of the students reported usually eating fruits two or more times per day and 18 % reported usually eating vegetables three or more times a day. Nearly, 25% of the children not trying to do any physical activity.

Tobacco: Nearly 1.4% of students reported that they initiated smoking or smokeless tobacco product (such as chewing tobacco or betel quid with tobacco); current tobacco smoking is 1.8 %. About 69% reported first smoking tobacco before the age of 14 years among those who ever smoked. The initiation to chewing tobacco is around 1.7 %

Alcohol and substance use: About 28 percent of the students had their first drink at home which indicates that many have easy access to it at home. Initiation to Alcohol consumption is higher among adolescents in government school than private school either at home (43% versus 3%) or nearby school (1.4% versus 0.7%).

Regarding the intake of drugs in last 12 months, it became clear that 2 percent have had drugs at least 1 to 2 times in last 12 months.

Mental health

Loneliness: Almost 15 percent of these adolescent feel lonely most of the time or always. And this loneliness is equally experienced by those studying in government as well as private schools.

Sleep disturbance: 22 percent of adolescents in the government schools had difficulty sleeping most or all the time due to one or the other worry. Those adolescents studying in private schools enjoyed relatively better sleep with 12 percent having difficulty sleeping most or all the time.

Sadness: It became apparent that those studying in government schools were experiencing sadness and loneliness as high as **41 percent.**

Focus on academics: Nearly **20 percent** of the students found it difficult either most of the time or always to focus on homework or other academic activities.

Emotional balance: 13.3 percent adolescents have abnormal emotional problems. Almost the same proportions are in the borderline level of emotional problems. The abnormal conduct problems are alarmingly high at **45 percent** and 20 percent are at borderline level. The abnormal hyperactivity component of SDQ is at 9 percent and 11 percent is borderline category. Again, the abnormal peer problems are very high at 45 percent and 20 percent are in the borderline category. The abnormal prosocial problem is present in 25 percent adolescents.

Conclusions and Key recommendations

The shock of the under-nourishment, mental health, early alcohol initiation, emotional imbalance crisis may have an unprecedented impact on education. The study findings offering an insight to set the clock back on the attainment of highest education goals while addressing key concerns, and disproportionately affected the poorer and most vulnerable.

Strict monitoring of concerns at school level and students' level along with supportive supervision has a potentiality to build resilient schools and can lay a groundwork for the rebound. There remains a benefit of an upward spiral, in a positive feedback loop of learning gain and inclusion.

Further, every positive spiral of supportive safe school environment incrementally has a potentiality to reverse image of a serious concerns to positive spiral, this could lead to the future of SAFE school education we want: one of inclusive change in education delivery, of unleashing the potential of school children, and of collective fulfilment, in all areas of life, through education investment.

Recommendation

The safe school survey examined the situation in both the government and private schools and circumstances surrounding the students. The survey focused on school and student level. The questionnaire comprised of both the physical, mental health and substance abuse aspect.

Specific recommendations are as follows.

School environment

1. Create a supportive school environment for students to develop healthy behaviours, especially on avoidance of tobacco, alcohol, drugs and junk foods.
2. Enforce the law on sale and use of tobacco/alcohol/drugs to minors and anyone else as applicable.

School-parental network

3. Establish effective networks of parents and teachers and school management committees to create a better psychosocial environment. This will help to create better psychological support for students not only in schools but also at home.

Physical activity

4. Provide facilities and the environment for recreational physical activity and include physical activity classes in the school curriculum and class schedule.

Water, sanitation and hygiene

5. Ensure clean running water at schools.
6. Hygiene practices among students needed ample scope for improvement to attain potential health benefits.
7. Provide soap and running water facilities to enable handwashing after using the toilet.
8. Many Wash facilities needed improvement, especially for early-grade students, girls, and students with disabilities.

Food habits, environment

9. Restrict the marketing and sale of unhealthy foods and drinks to children, especially in and around the school premises, and a possible ban on sale of sugary drinks in school, if feasible.
10. Formulate a policy on schools/ mid-day meal canteens so that they provide healthy food such as fruit, vegetables, and those that are low in salt, saturated fat, trans-fatty acids and free sugars; and provide safe, free, drinking water.

Verbal abuse/anti bullying policy at schools

11. Ensure a zero tolerance to verbal abuse/bullying policy.
12. Update curricula on healthy eating guidelines for children, mental health education, what to do about bullying, how to seek help if feeling lonely or contemplating suicide, and drug-use Education.

Safe-school certification and assessment

13. Facilitate safe school survey at regular interval (preferably every 2 years) to understand the status of school and children concerns.

14. Use appropriate technological solutions to such as mobile app, helpline, data capture automation to scale the program to all the schools across the state.

2 Background and Introduction

Adolescence mark significant transitions in physiological, cognitive, emotional, moral, social, and other domains. Though most children sail through these transitions, some become stressed, which can lead to psychological problems. Many school going children are battling major physical, behavioural and mental health issues and are often turning to addiction (tobacco, alcohol, digital) as a short cut in their quest to find answer to their problem. Therefore, safe school project adopts spectrum approach (Physical, behavioural and mental health and school environment) to promote healthy behaviour among children. Many of today's and tomorrow's leading causes of death, disease and disability can be significantly reduced by preventing risky behaviours that is initiated during youth, through health education, understanding and motivation; and fostered by social and educational policies and conditions. In India, ever-increasing adolescent health problems accentuate the need for safe school program. Safe school project goal is to generate new knowledge which informs the development of safe school model and accelerates progress towards achieving *sustainable development goals* by improving 'preventive gap' in school health.

This safe school study employs a mix of school level/macro criteria and micro/children level criteria. Both were observed, assessed, and critically analyzed to provide policy directions in the state.

3 Purpose of Safe School Health Study

The purpose of safe school initiative is to generate world-class research evidence on the implementation and scaling up of prevention and promotion of safe schools. The focus was to develop a model document through the pilot project which can be widely adopted by schools, policy makers and practitioners. Safe school project aims to achieve its goal by addressing three major objectives in three overlapping phases across the life of the project.

- **Inception phase:** Development of an integrated safe school plan comprising packages of survey tools and interventions.
- **Implementation phase:** Evaluate the feasibility, acceptability and impact of the interventions in the contexts of routine safe school program.
- **Scaling Up phase:** Evaluate the scaling up of these packages of care at the level of individual school's administrative safe school units (ASUs)/taluks.

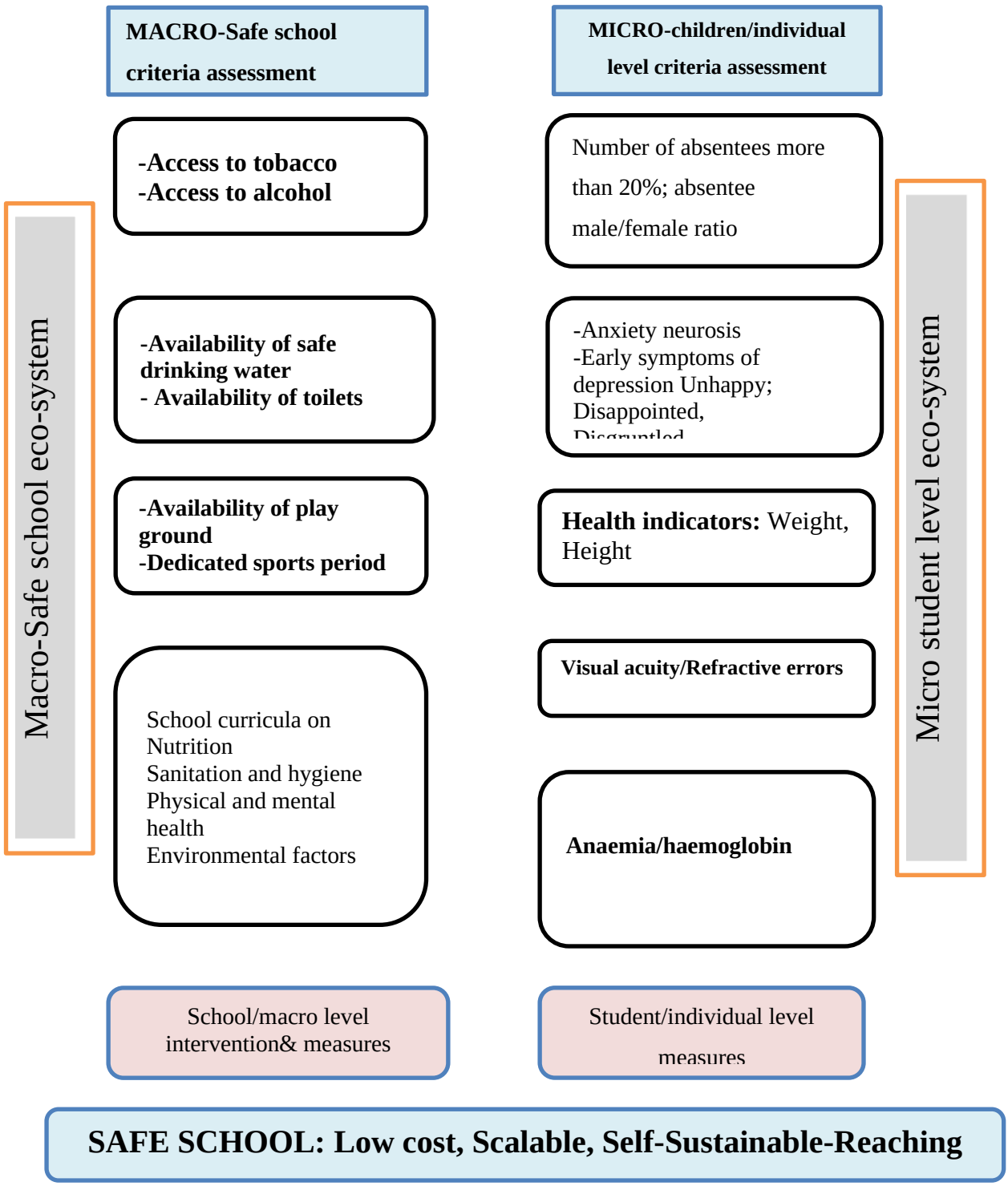
In this study we compared experiences of the study settings to generate relevant evidence. The safe school project aimed to provide sound evidence on strategies to integrate preventive/promotive care within safe school program. We applied school life course model approach for developing interventions. By working in partnership with Ministries of Education

and Health, academic institutions and civil society organizations, plan make an immediate and long-term impact on a range of beneficiaries, including adolescents and the health research and systems communities.

In the recent past, there has been a little attempt to strengthen safe schools' program in India. However, such attempts are limited when considering the broader Karnataka state or national landscape. Further, some of current efforts are not comprehensive and are sporadic. This safe school project will act as a guide and blueprint to scale up in wider geographical areas.

4 Safe school model project

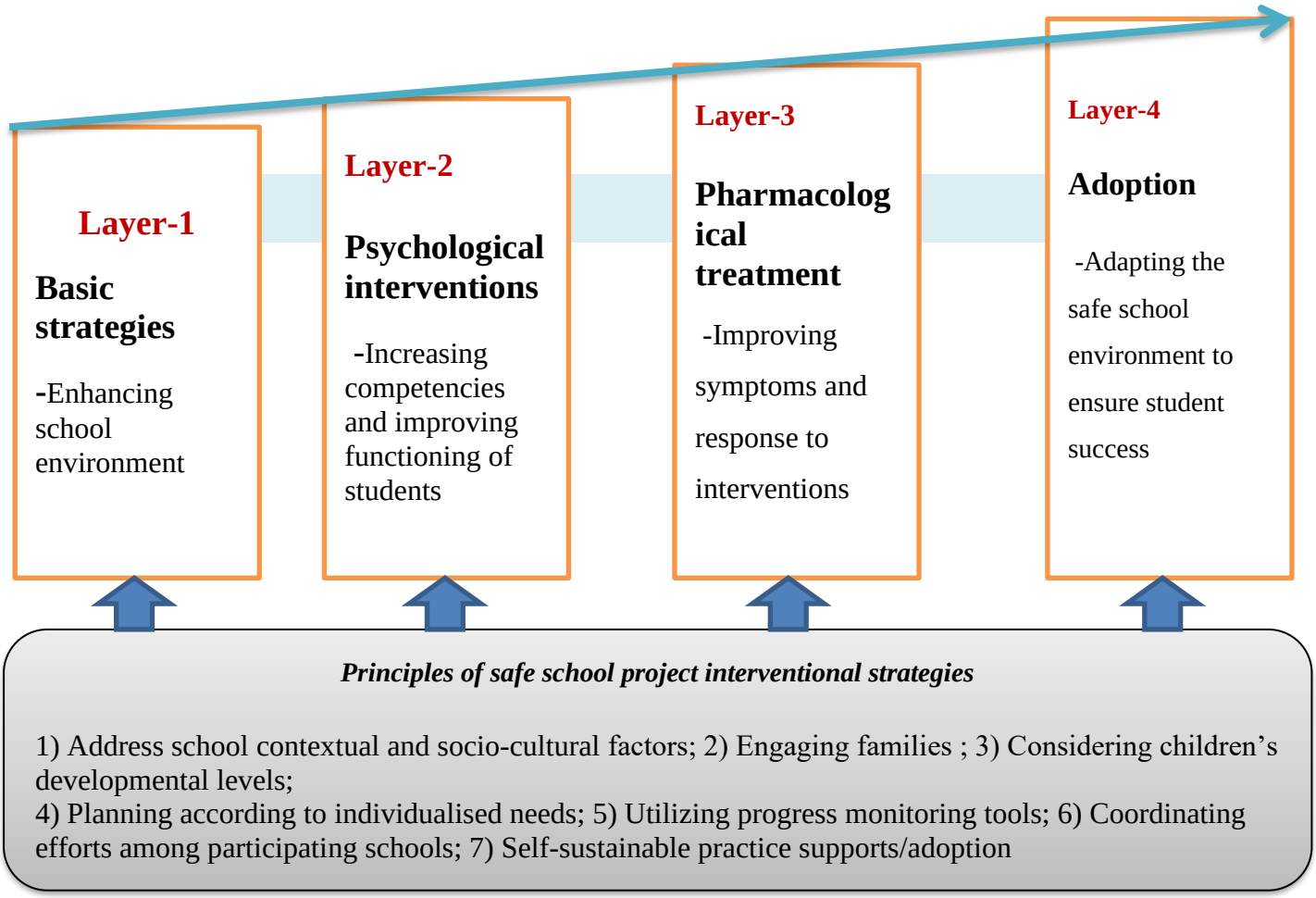
Figure 1 conceptualisation of safe school study



5 Life course approach

Figure 2 illustrative depiction of the Life Course Model for interventional strategies

(Petca, Zoromski and Evans, 2019)



6 Study Objectives

The objectives have two components: School and Student

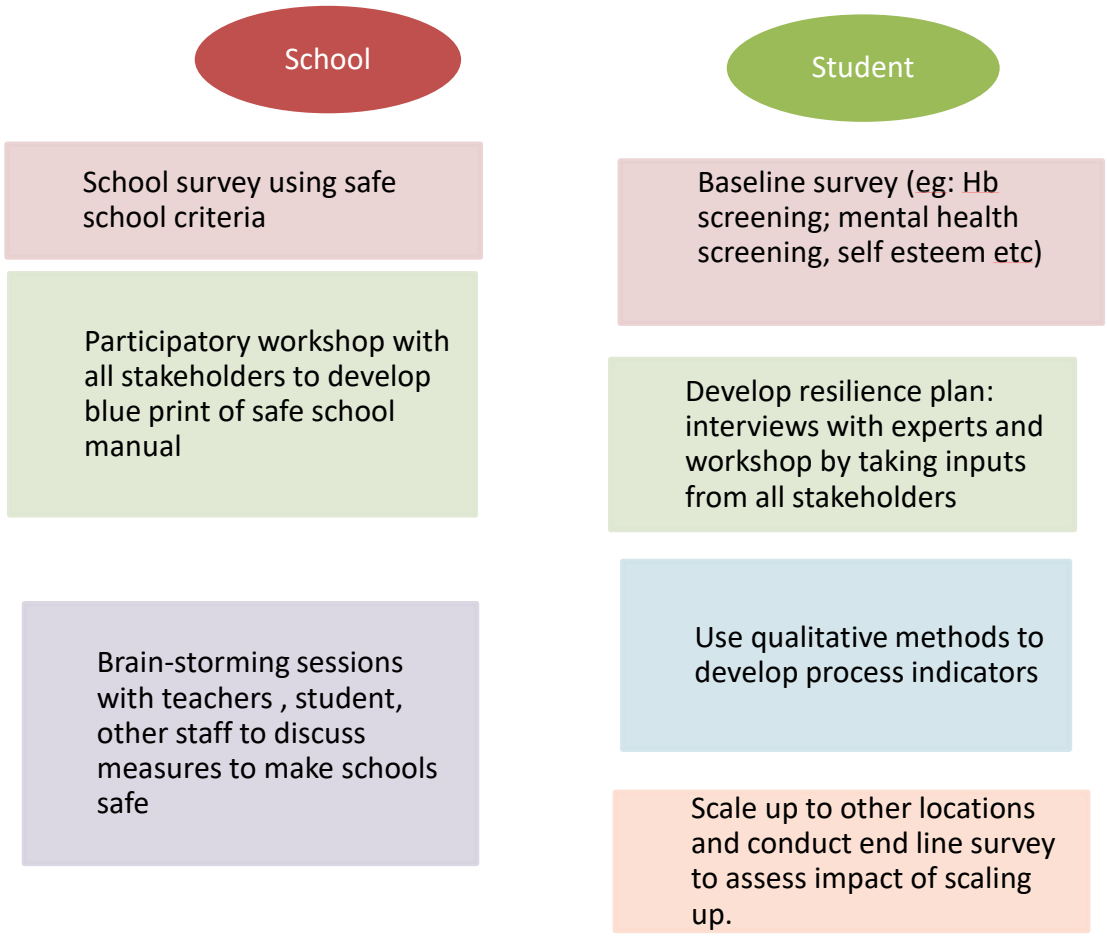
6.1 The objective of the School component:

- To assess the extent to which the selected schools conform to the safe schools' criteria.
- To ensure support of students, teachers and other school staff in developing and achieving safe school standards.
- To develop a safe-school blueprint manual that is sustainable and replicable.

6.2 The objective of the student component

- To assess the nutritional status of adolescents (proxy of physical health).
- To assess mental health issues and/or substance abuse among adolescents.
- To develop **a resilience plan as a preventive intervention for adolescents.**

Figure 3 Study objectives school and student components



7 Methodology

7.1 Design of the safe school study

The study was designed using an initial literature review and pilot. We considered key literature to design the study such as World Health Organization (WHO) and CBSE (Central Board for Secondary Education) guidelines for Health Promoting Schools.

The criteria are designed for school management, principals, teachers, students and their parents to take action locally to make their schools health-promoting schools. All the stakeholders are expected to help make schools healthier places to learn by providing quality nutrition, integrating physical activity during the school day, and teaching children about the importance of embracing a healthy active lifestyle. These criteria expected to help schools by providing them with activities to identify, prioritize and organize health-related issues and take the necessary steps to promote health. The study plan expected to help assess their resources and identify the health-related issues in the school; involve students, teachers and other school staff in developing a vision, goals and objectives for health promotion; document the progress and plan for the future.

7.2 Approval of the schools to participate in the study.

A formal communication was undertaken with prospective participating schools. After receiving a formal letter of commitment from the schools then the safe school implementation team initiated the documentation of safe school practices.

7.3 Study setting

Foundation of sustainable health India, Indian Institute of Public Health Bangalore, in collaboration with Narayana health-CSR and Karnataka state schools' association, together with planned to initiate safe school study. The pilot study was conducted in 14 schools in each of the taluks identified viz. Anekal in Bangalore Urban District and Doddabalapura in Bangalore rural district. In each taluka, 7 private schools and 7 government schools were selected in consultation with the Block Education Officers of the education department and the local Non-Governmental Organizations (NGOs). In the Anekal district, it was Narayana Health, who has partnered with the Safe School Project.

Given the limitation of resources and time, we purposefully chose.

- 14 schools from rural Doddaballapura taluk and (*seven* government and *seven* private schools)

- 14 schools from urban Anekal taluk (proximal to the electronic city) (*seven* government and *seven* private schools)

7.4 Participant details

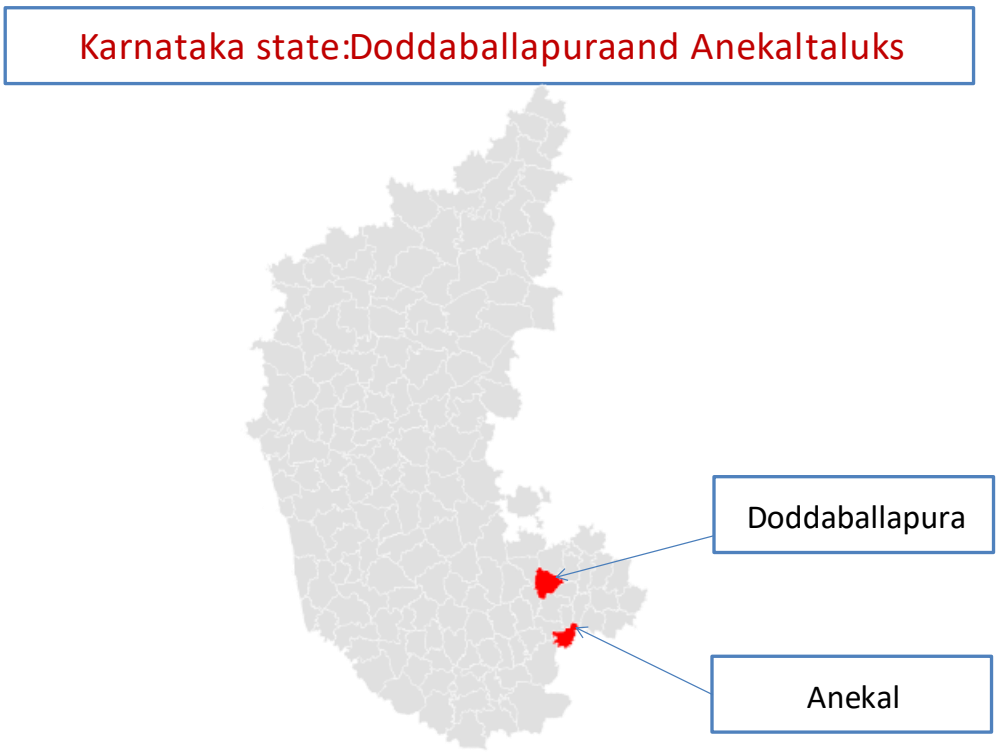
The study subjects were from 7th, 8th, 9th and 10th class students, both male and female were included in the study. The study instruments were administered to both the school clusters in each of the taluks and planned to examine the difference between urban and rural government and private schools against the set criteria.

7.5 Complete enumeration

No sampling method was used for administering the survey. Rather the survey was conducted among all students enrolled in the selected 28 schools which amounted to a size of 6153 participants.

7.6 Study area map

Figure 4 Map of Doddaballapura and Anekal Taluk



7.7 Instruments

Four instruments were used for data collection, namely,

1) modified version of Global school-based student health survey

2) Strength and Difficulty Questionnaire

3) Rosenberg Self-esteem scale and

4) School assessment questionnaire. The details of these instruments are detailed below.

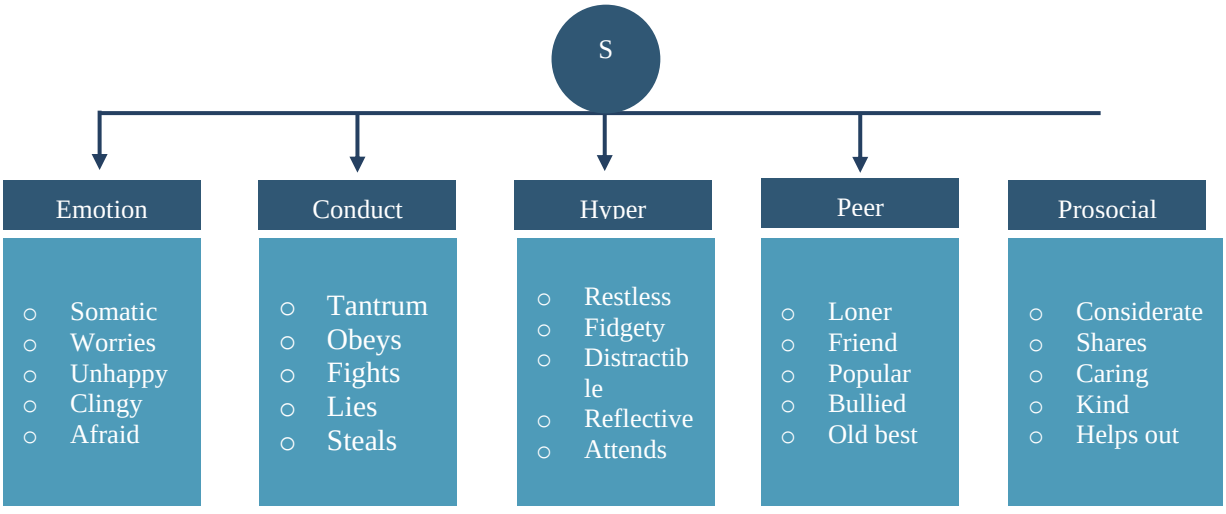
7.7.1 Global school-based student health survey (GSHS) questionnaire:

The instruments were predominantly drawn from the Global school-based student health survey (GSHS), which is a relatively low-cost school-based survey developed by World Health Organisation (WHO). It uses a self-administered questionnaire developed by individual countries to obtain data on young people's health behaviour and protective factors related to the leading causes of morbidity and mortality among children, adolescents and adults.

7.7.2 The strength and difficulty questionnaire

The questionnaire assesses emotional and behavioural problems in children and adolescents. It consists of 25 items and an impact part and has the advantage of being relatively short and uniform. In addition, the inclusion of positive items makes SDQ suitable across non-clinical samples. The established scoring procedure for the SDQ links each of the 25 items to one of five distinct subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and pro-social behaviour. Refer to figure 5 below for details. The sum scores for each of these scales range from zero to ten. The first four categories can be aggregated by adding the subscale scores to a total difficulties score (ranging from zero to 40 points).

Figure 5 Description of components included under SDQ subscales.



The classifiaction is based on following reference: *T, Hysing M, Skogen JC, Breivik K (2016) The Strengths and Difficulties Questionnaire (SDQ): Factor Structure and Gender Equivalence in Norwegian Adolescents. PLoS ONE 11(5): e0152202. doi:10.1371/journal.pone.0152202*

7.7.3 Rosenberg Self-Esteem Scale

The RSES scale designed as a Likert scale which has 10 questions to which the response is on a four-point scale ranging from strongly agree to strongly disagree.

Scores are assigned to each of the 10 items as follows:

For items 1,2,4,6,7: Strongly Agree=3, Agree=2, Disagree=1, and Strongly Disagree=0.

For items 3,5,8,9,10 (which are reversed in valence, and noted with the asterisks** below): Strongly Agree=0, Agree=1, Disagree=2, and Strongly Disagree=3.

The scale ranges from 0-30, with 30 indicating the highest score possible.

7.7.4 School assessment questionnaire

Each school was assessed on 11 parameters using 30 questions and a total score of 300. Table 1 below enlists the number of questions under each parameter.

Table 1 Description of parameters included in the school assessment questionnaire.

Parameter	No. of questions
Display of health-promoting school policy in school or visitors' area	**1**
Infrastructure, Hygiene, and sanitation facilities	**5**
Adequately maintained school infrastructure	**3**
Nutrition	**3**
Physical activity	**1**
Tobacco prevention	**2**
Healthy curriculum	**7**
Participatory health promotion	**2**
Health training	**2**
Health check-up	**2**
School health policies	**2**
TOTAL	**30**

Using a school assessment questionnaire, school level primary data was collected from 28 schools from both the study sites. A student-level questionnaire was developed using the instruments

outlined earlier and administered to the students. Biometric assessment such as height and weight were taken, besides this eye screening too was undertaken to identify refractive errors. Haemoglobin levels were too assessed employing a point of care test that involved a pinprick.

The method of data collection is detailed as follows:

7.8 Method of data collection

While undertaking an activity such as this, it is procedural to obtain consent from the authority concerned. Accordingly, consent was obtained from the school principals to assess the 14 schools identified in Anekal Taluk. The protocol of this research has been approved by the Institutional Ethics Committee of the Indian Institute of Public Health, Bangalore.

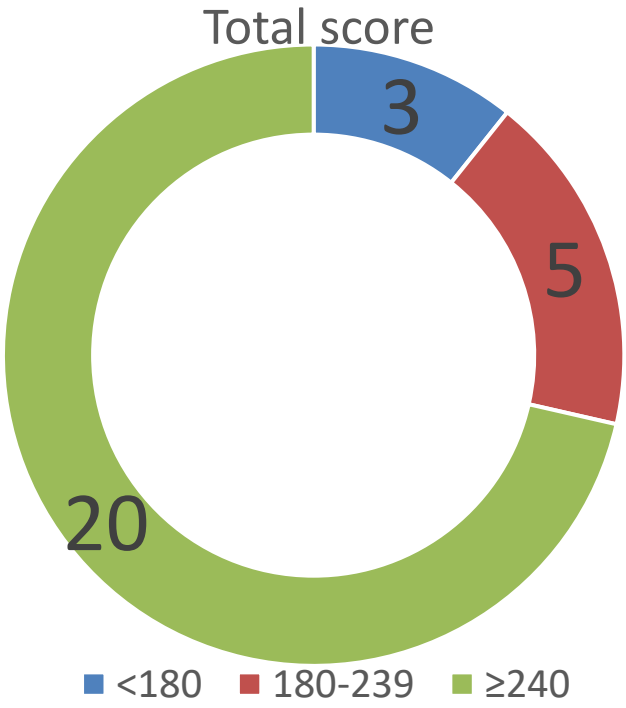
The assistance of a team comprising of school teachers and NGO partners was crucial for the collection of data. These partners were orientated and trained regarding data collection and ensured the safety, security, and confidentiality of the participants. The NGO team comprised of Community Health Workers, dentists, paramedics, and social workers. The health workers carried out the biometric screening. This was followed by filling up of self-administered questionnaires which were distributed among the student participants. The NGO research team and teachers provided clarification to the student while filling up the self-administered questionnaire. Monitoring and quality check was conducted by the technical team of the project. The data collected was entered using the software CSPro. The descriptive data analysis was done using SPSS software.

8 Results

8.1 School assessment

The school-level assessment concludes that 20 schools (9 government and 11 private) have scored 80 per cent and above across all the 11 parameters. However, five schools (4 government and 1 private) have scored between 60 to 80 per cent which is in the middle range. Only three schools figured in the least performing school by scoring less than 180 points.

Figure 6 School assessment findings



The parameters on which 40 to 50 per cent of the schools scored poorly and needs each school to act upon are listed as follows:

- **Display** of **health-promoting** school policy in school or visitor's area.
- **Hygienic** preparation of food in mid-day meals/canteen.
- Notification **prohibiting smoking** around multiple places on campus.
- **Prohibition** of **selling cigarettes** and other tobacco products in an area within a radius of 100 yards from the educational institution.

- Inclusion of the theme - **Tobacco control** in the school curriculum
- **Training** provided by schools in **first aid** and referrals for health issues to students.
- Regular **health check-up** organized by the school for school staff.
- **No healthy school policies**
- Display of IEC materials on various themes

8.2 Demographic profile of students

The demographic profile of our participant sample of 6153 adolescents has a mean age of 14 years. The sample is equally distributed across male and female participants. Two-third of the sample is in the 8th and 9th standard. The graphical representation of the demographic profile is illustrated in figure 7, 8 and 9 below.

Figure 7 Age distribution of participants

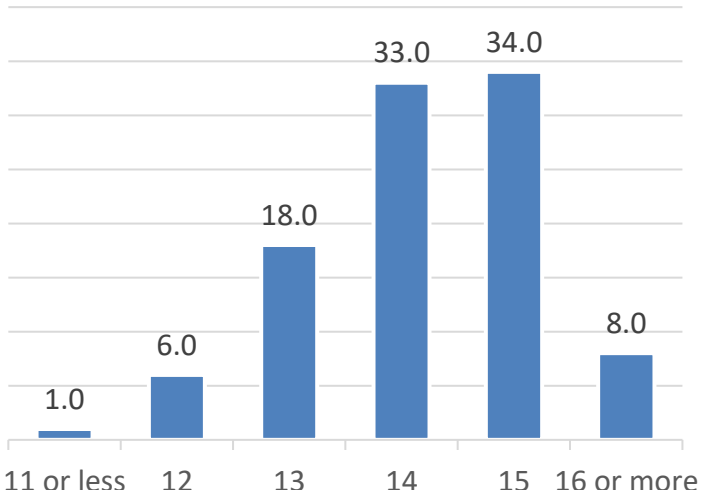


Figure 8 Sex distribution of participants

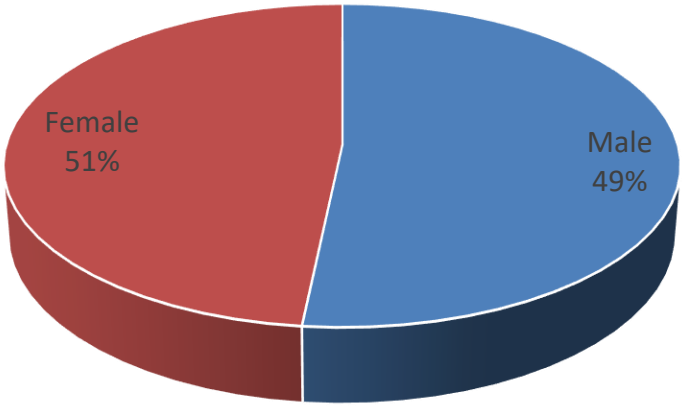
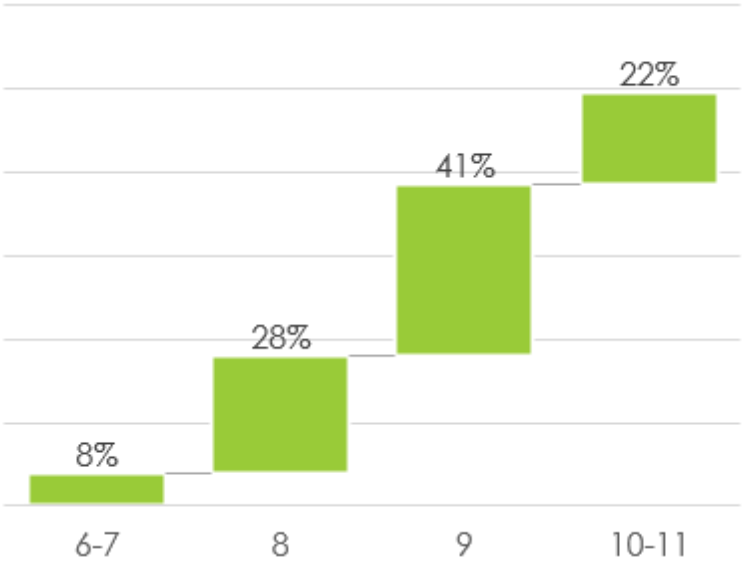


Figure 9 Academic class distribution of participants



The enrolment profile of the sample distributed across the government and private schools is illustrated in Table 2 below. Almost, 60 per cent of these students are in government schools and 40 per cent are enrolled in private schools.

Table 2 Distribution of participants across types of school

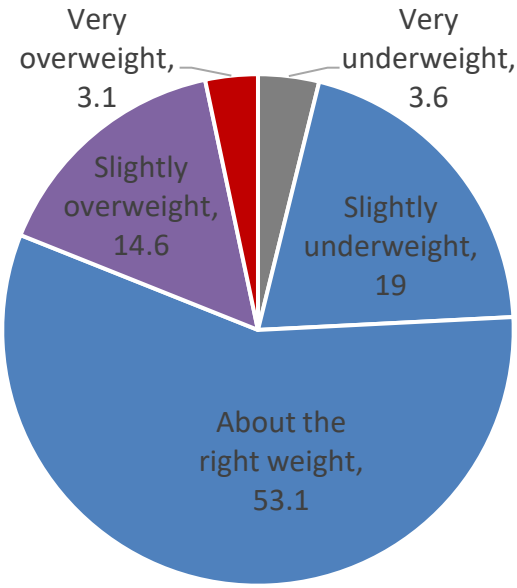
	Category	n	%
Group	Government schools	3737	61.0%
	Private schools	2386	39.0%

8.3 Physical health

8.3.1 The perception around physical health

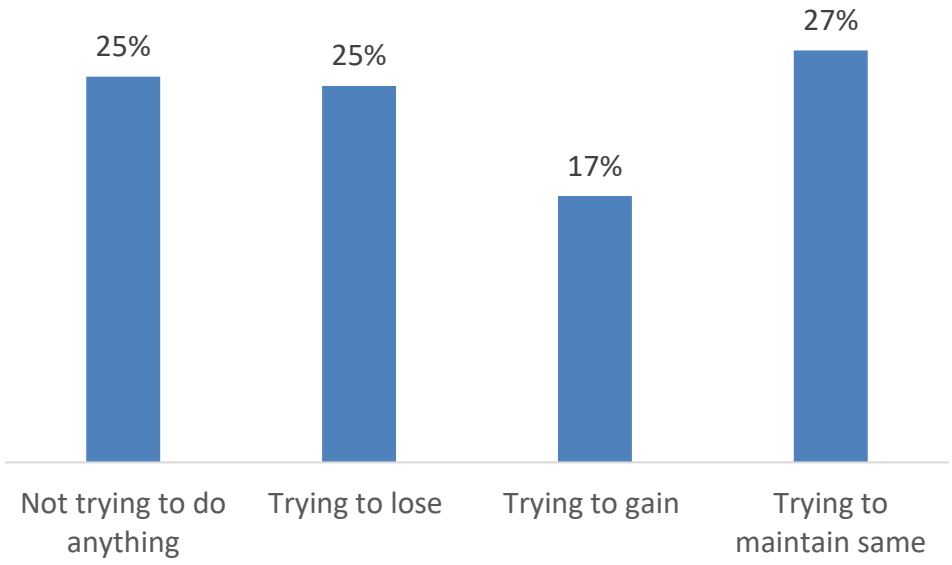
The adolescent's perception regarding their own health can give us a clear idea about their physical health. Also, it will be important for us to explore any action they might take if they are not satisfied with their physical health status. Almost 50 per cent of our study population consider their weight to be right. However, 15 per cent of adolescents consider themselves overweight whereas 23 per cent consider themselves underweight.

Figure 10 Distribution of perception regarding physical health



About one-fourth of the studying participants mentioned that they are trying to lose weight. Again, 17 per cent of these adolescents seem to be trying to gain weight.

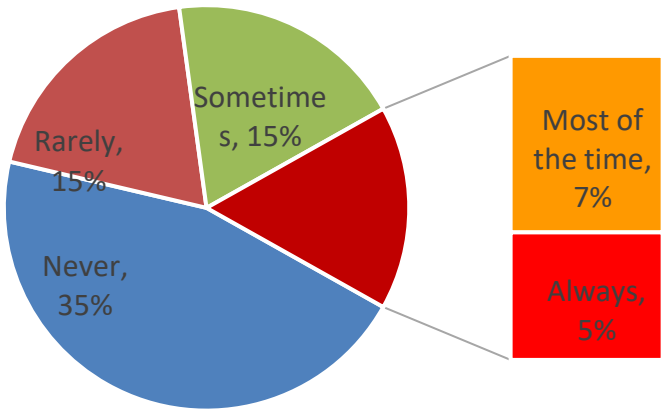
Figure 11 Distribution of effort in weight management



8.3.2 Going to school hungry

One of the important findings of this study is that 1 in every 10 students goes to school hungry. This gives an important message to us that we need to work for ensuring that adolescents in their growing age do not go to school on an empty stomach.

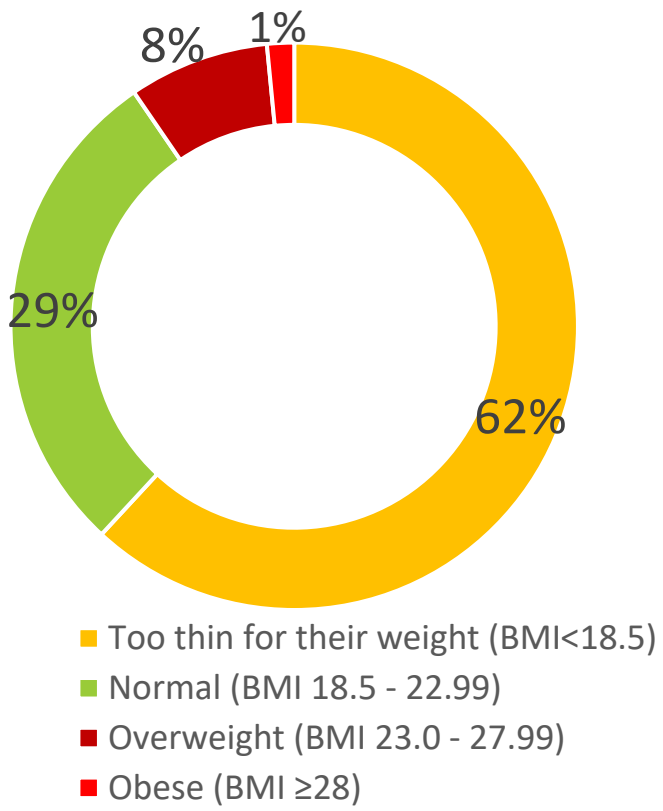
Figure 12 Distribution of food intake by adolescents before school



8.4 Body-Mass index

The body mass index is an indicator for assessing the nutritional status of an individual. It is defined as a person's weight in kilograms divided by the square of the person's height in meters. The nutritional status of the study participants leaves a lot to be desired as 62 per cent are too thin for their weight. Eight per cent of these participants are overweight and one per cent obese.

Figure 13 Distribution of body-mass among adolescents



Further, there is a relatively higher concentration (4 percent) of those who are too thin for their weight in government schools. Conversely, there is a relatively higher concentration (2.6 percent) of those who are overweight in private schools than compared to their government school counterpart. However, the percentage distribution of those who are obese is almost similar across government and private schools.

Table 3 Distribution of body mass across types of school

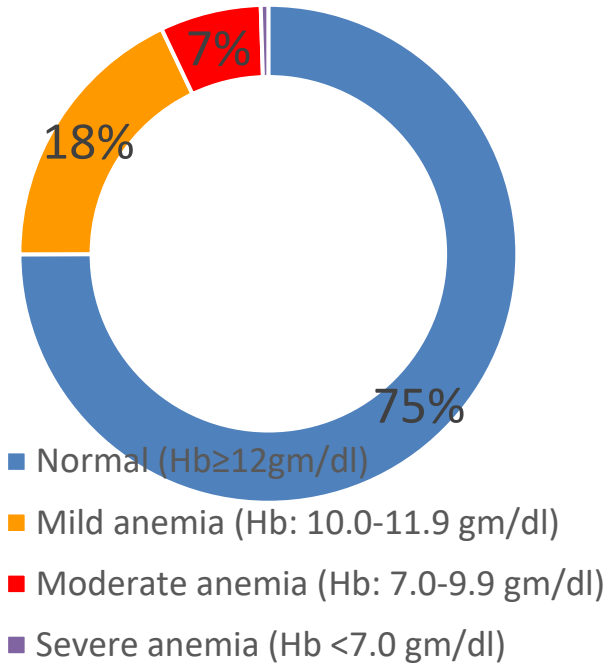
	Govt school (N=3,726)	Pvt school (N=2,375)	Total (N=6,101)
Too thin for their weight	63.6	59.3	61.9
Normal	28.1	29.3	28.6
Overweight	7.0	9.6	8.0
Obese	1.4	1.8	1.5

Following ranges are used for categorization: Too thin for their weight (BMI<18.5); Normal (BMI: 18.5-22.99); Overweight (BMI: 23.0-27.99); Obese (BMI ≥28.0)

8.5 Anaemia

In assessing nutritional status, the condition in which there is a lack of red blood cells that leads to reduced oxygen flow to body organs is known as anaemia. Any impediment to the growth and development of adolescents' body and intellect would have a retarded impact on their future prospects of enjoying good health. Mild anaemia is reported among 18 per cent of adolescents. Moderate anaemia is reported among seven percent of the sampled participants and severe anaemia among 0.5 percent.

Figure 14 Distribution of anaemia among adolescents



Those studying in government schools have poorer nutritional status, for instance, government school students are 2.4 percent milder anaemic and 5.4 per cent more moderately anaemic compared to those in private schools. Also, those in government schools are 0.3 per cent more severely anaemic compared to their private school counterparts.

Table 4 Distribution of anaemia across types of school

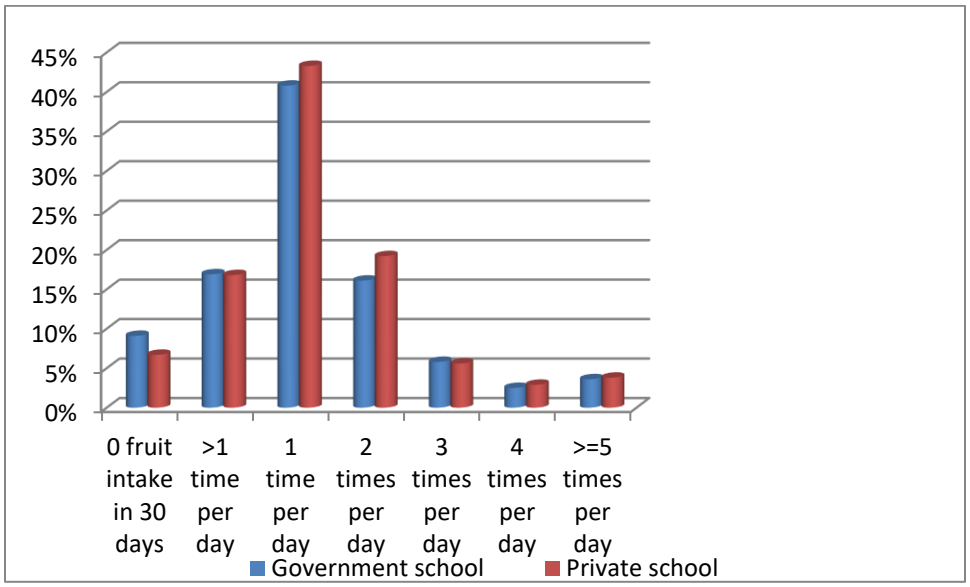
	Govt school (N=3,737)	**Pvt school (N=2,386)**	**Total (N=6,123)**
Normal	71.8	80.0	75.0
Mild anemia	18.9	16.5	18.0
Moderate anemia	8.7	3.3	6.6
Severe anemia	0.6	0.3	0.5

8.6 Food habits and lessons on healthy eating

8.6.1 Intake of fruits in last 30 days

While exploring why the nutritional status of the adolescents in government school is poor, we came across their intake of fruits in the last 30 days. The data suggests that there is a relatively higher intake of fruits, at least once or two times per day, among adolescents studying in private schools.

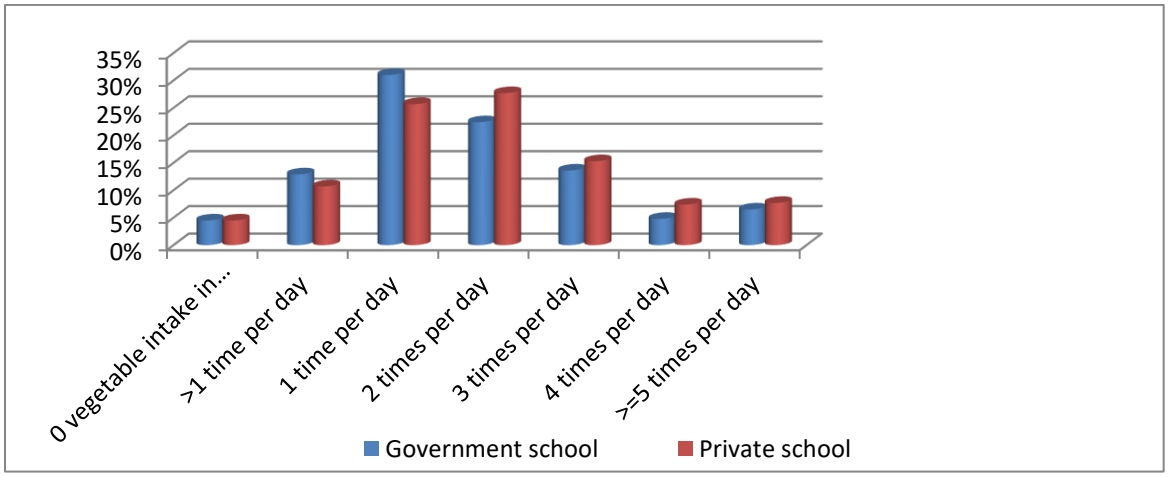
Figure 15 Distribution of fruit intake among adolescents



8.6.2 Intake of vegetables in last 30 days

The frequency of vegetable intake is even greater among those in private schools compared to their counterparts in government school. The difference is more pronounced in vegetable compared to fruit intake. This could explain the nutritional advantage that students in private schools have that was observed earlier.

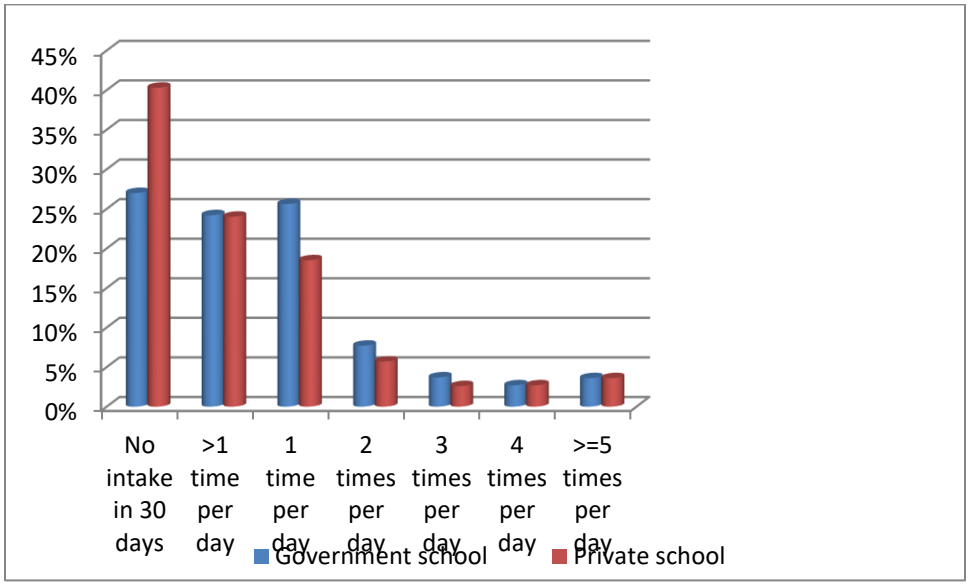
Figure 16 Distribution of vegetable intake among adolescents



8.6.3 Intake of carbonated drinks in last 30 days

The consumption of carbonated drink is known to be energy-dense but nutritionally poor. The high intake of carbonated drink has been found to induce obesity, dental caries, early puberty and aggressive behaviour among young children and adolescents. The intake of carbonated drinks is found to be relatively higher among adolescents studying in government schools.

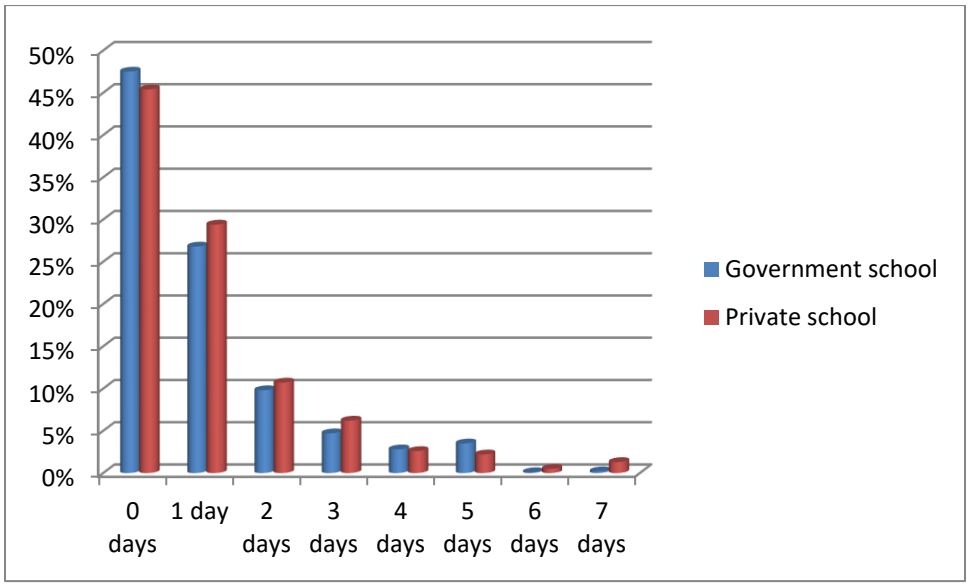
Figure 17 Distribution of carbonated drink intake among adolescents



8.6.4 Fast food consumption in last 7 days

The consumption of fast food is higher among adolescents studying in private school. This could explain the higher overweight and obese adolescents that was observed in private schools.

Figure 18 Distribution of fast-food intake among adolescents



It is observed that a large proportion of adolescents have compromised nutritional status either due to the quality of food that is being eaten (less consumption of fruits and vegetables) or they have unhealthy eating habits (drinking carbonated drinks and junk intake). With this given background it is striking to note that almost fifteen to twenty per cent of these adolescents have reported that they have not received any teachings on healthy eating.

8.7 Mental health

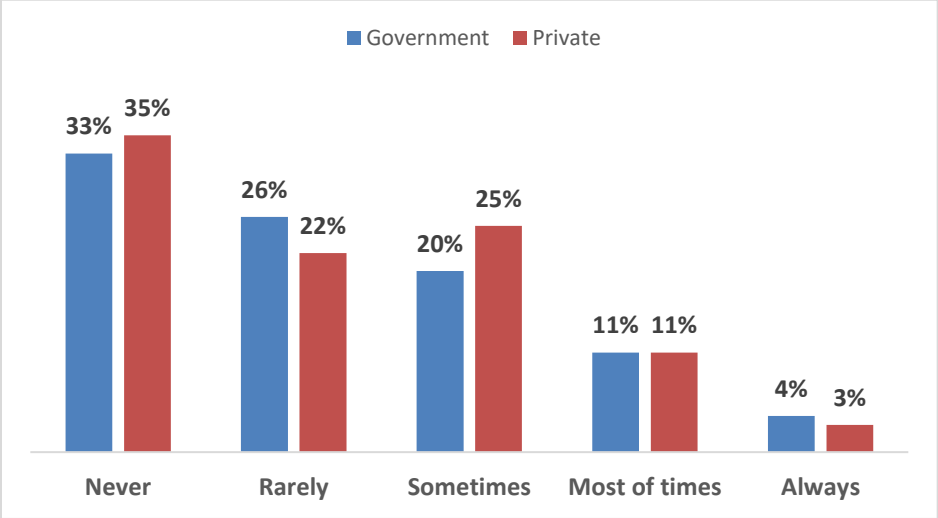
Mental health is the basis of the physical, academic and overall development of an adolescent now and forms the basis of their adult life. We have explored multiple aspects of mental health, starting with their emotional health and social connectedness.

8.8 Emotional health

8.8.1 Loneliness

The adolescents were probed regarding their mental health where they were asked how often they feel lonely. Almost 15 percent of these adolescent feel lonely most of the time or always. And this loneliness is equally experienced by those studying in government as well as private schools.

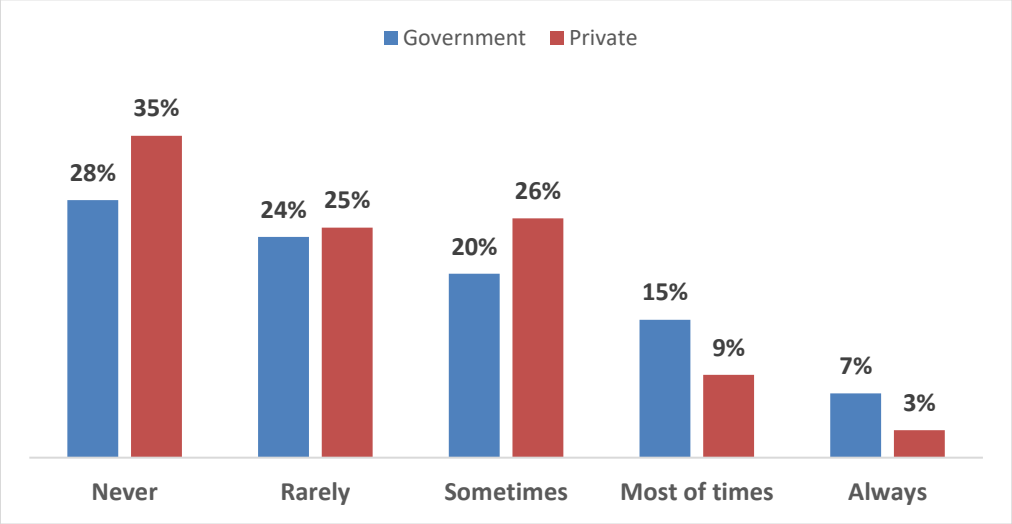
Figure 19 Distribution of loneliness among adolescents



8.8.2 Sleep disturbance due to worrying at night.

Sleep is extremely crucial for the growth and development at the physical and psychological level. When adolescents were probed regarding the rhythm of their sleep, it was worrying to find that 22 percent of adolescents in the government schools had difficulty sleeping most or all the time due to one or the other worry. Those adolescents studying in private schools enjoyed relatively better sleep with 12 percent having difficulty sleeping most or all the time.

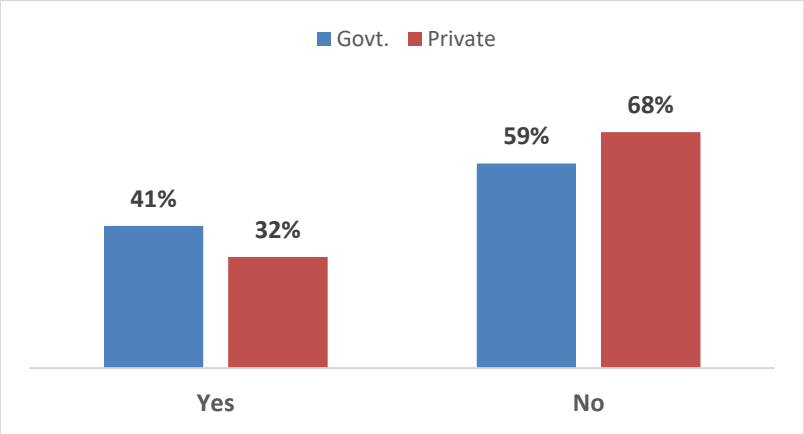
Figure 20 Distribution of sleep disturbance among adolescents



8.8.3 Sadness or hopelessness

When probed adolescents regarding the feeling of sadness or hopelessness that they experienced for two weeks in a row in the last 12 months. It became apparent that those studying in government schools were experiencing sadness and loneliness as high as 41 percent. Also, the private school counterparts were not far behind in experiencing this negative emotion. These figures give us a strong message regarding the need to address the mental health issues of the adolescents as it has the potential to create havoc in the overall wellbeing of these young people.

Figure 21 Distribution of sadness or hopelessness among adolescents

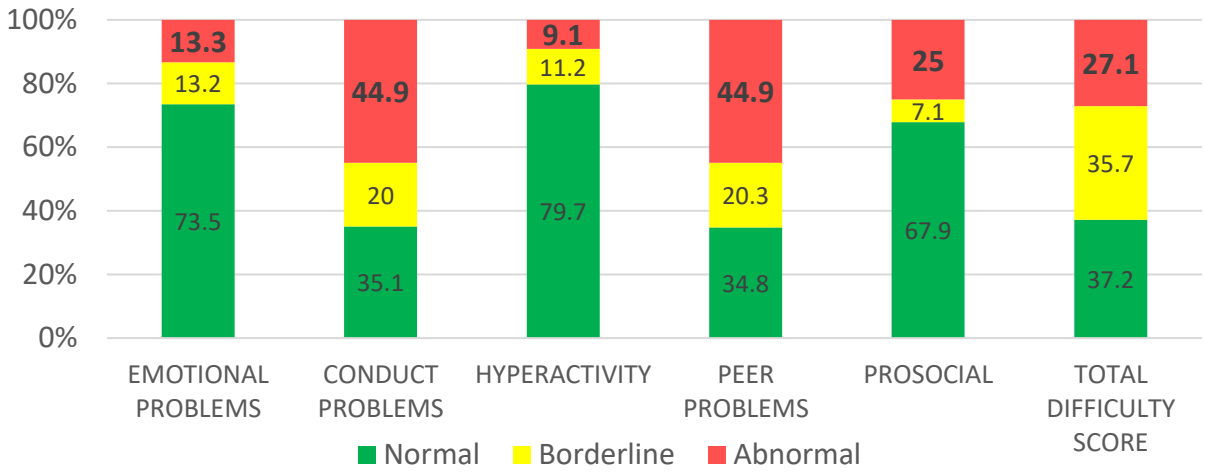


8.9 Strength and Difficulty Questionnaire (SDQ)

The findings from the strength and difficulty questionnaire reveal that 13.3 per cent of adolescents have abnormal emotional problems. Almost the same proportions are in the borderline level of emotional problems. The abnormal conduct problems are alarmingly high at 45 per cent and 20 per cent are at borderline level. The abnormal hyperactivity component of

SDQ is abnormal at 9 per cent and 11 per cent is a borderline category. Again, the abnormal peer problems are very high at 45 per cent and 20 per cent are in the borderline category. The abnormal prosocial problem is present in 25 per cent of adolescents. Finally, the abnormal total difficulty score is 27 per cent among adolescents. Borderline total difficulty score is as high as 35.7 per cent. These figures press the need for us to take actions in each component of the SDQ to ensure a better mental health situation for adolescents.

Figure 22 Distribution of SDQ among adolescents



The SDQ scores were compared for boys and girls, it was observed that they both do not differ significantly from each other. However, the abnormal and borderline total difficulty score is marginally higher among girls than boys.

Table 5 Distribution of SDQ across sex

	BOYS			GIRLS		
	Normal	Borderline	Abnormal	Normal	Borderline	Abnormal
EMOTIONAL PROBLEMS	75.6	12.8	11.6	71.7	13.5	14.9
CONDUCT PROBLEMS	33.9	20.3	45.8	36.3	19.7	44.0
HYPERACTIVITY	79.1	11.8	9.1	80.3	10.5	9.2
PEER PROBLEMS	36.6	19.9	43.5	33.0	20.7	46.3
PROSOCIAL	66.0	8.0	26.0	69.7	6.3	24.0
TOTAL DIFFICULTY SCORE	38.3	35.1	26.5	36.1	36.2	27.8

The SDQ scores were compared for government and private school, it was observed that the students in government schools experience much higher abnormal (34.8 percent) and borderline (40.8 percent) total difficulty score. Thus, there is a need to intervene in government schools to ease the symptoms across all five parameters of SDQ.

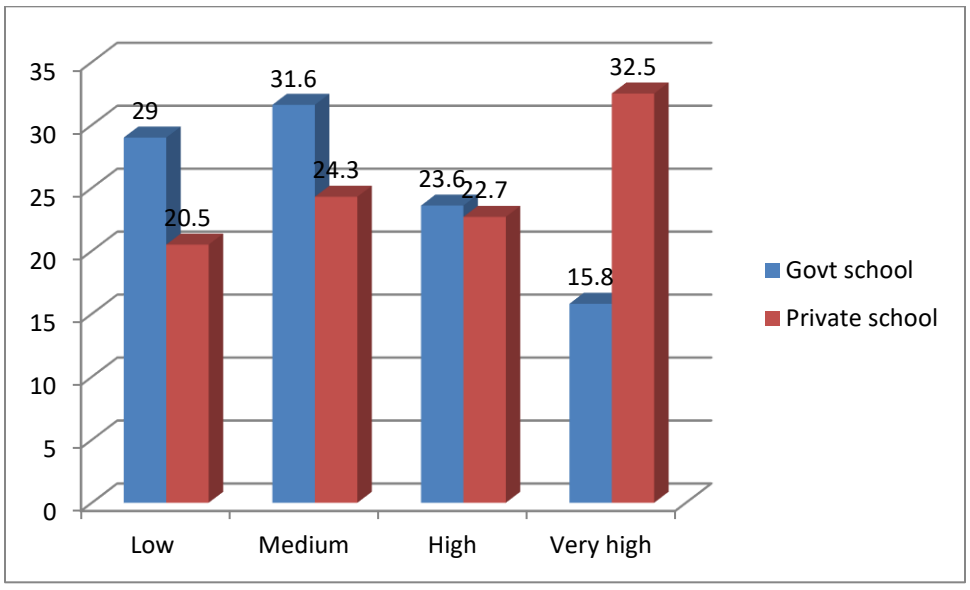
Table 6 Distribution of SDQ across type of school

GOVT SCHOOL			PVT SCHOOL		
Normal	Borderline	Abnormal	Normal	Borderline	Abnormal
69.4	14.6	15.9	79.2	11.1	9.7
21.8	21.4	56.7	52.8	18.1	29.1
76.8	12.4	10.8	83.7	9.5	6.8
34.0	18.9	47.0	35.8	22.1	42.0
62.2	7.1	30.7	75.8	7.1	17.1
24.5	**40.8**	**34.8**	**53.4**	**29.2**	**17.5**

8.10 Self-esteem

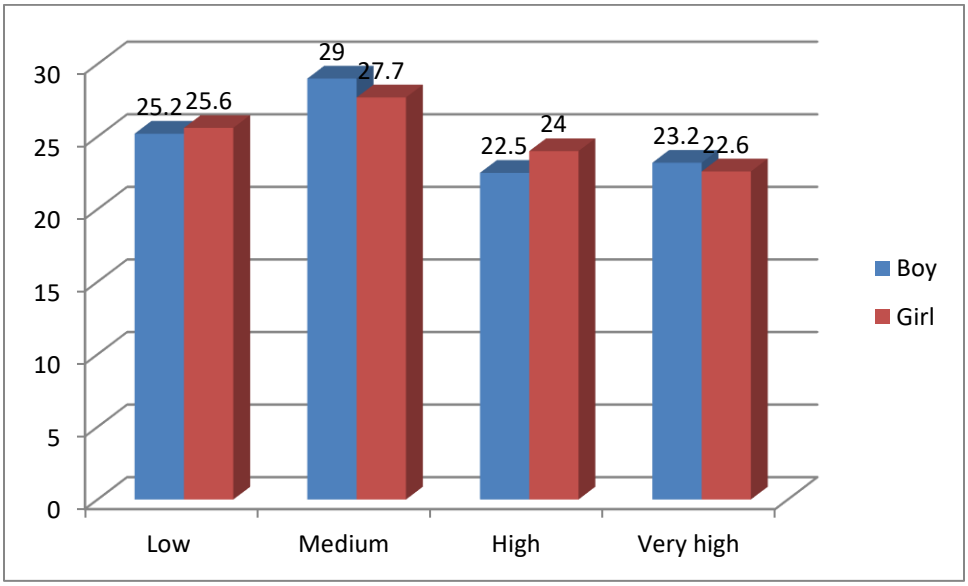
Self-esteem early in life is another indicator that determines overall progress and development in later years. It is important to note that those studying in private schools have demonstrated far greater self-esteem compared to their government school counterparts.

Figure 23 Distribution of Self-esteem across the type of school



However, there was no marked difference in self-esteem that was observed between male and female participants.

Figure 24 Distribution of Self-esteem across sex

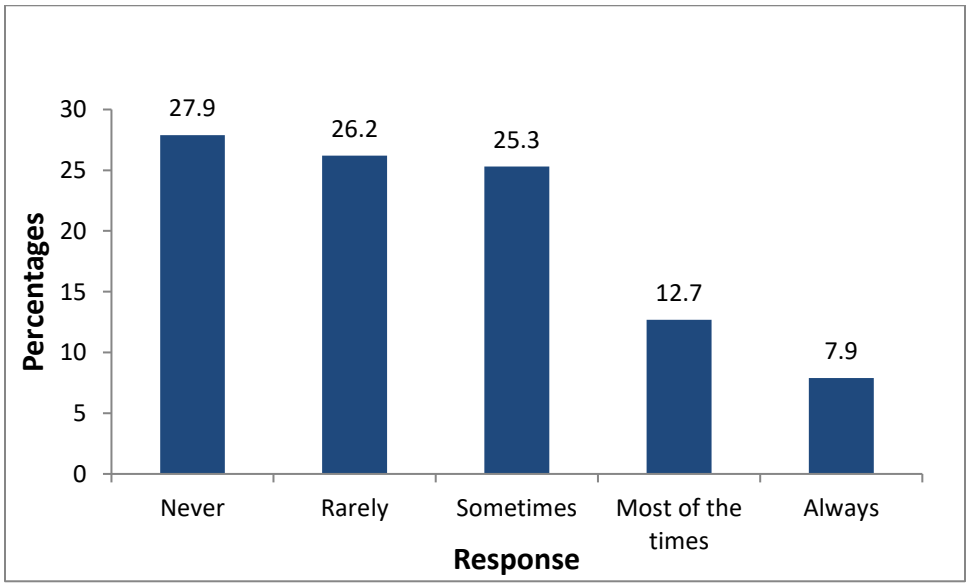


8.11 Focus and concentration

8.11.1 Difficulty in staying focussed on homework and other things.

It was rather worrying to find that 20 per cent of the students found it difficult either most of the time or always to focus on homework or other things. At an age when adolescents are expected to excel in academics, it is rather daunting if a big proportion finds it difficult to stay focussed on academics.

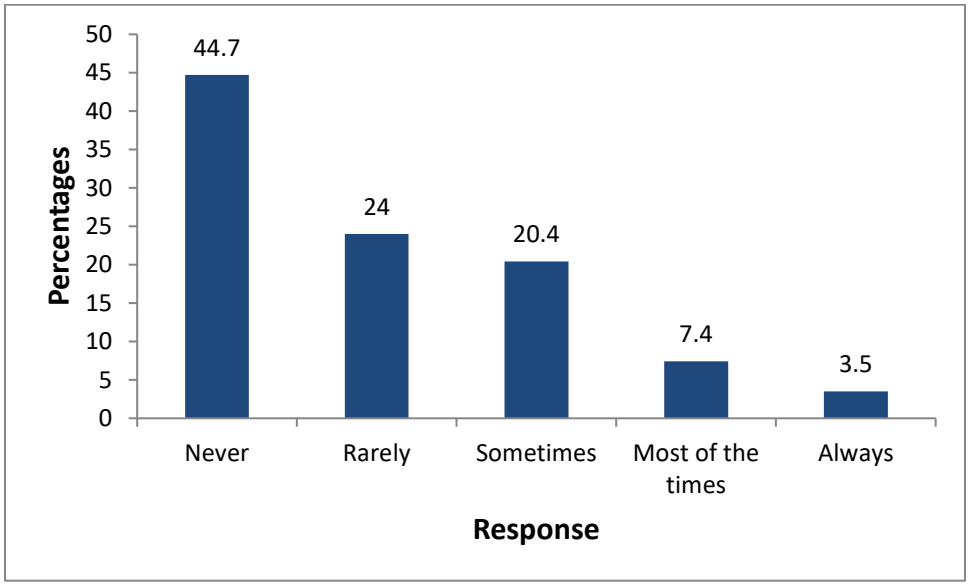
Figure 25 Distribution of focus among adolescents



Almost 11 per cent also have trouble in answering questions or writing on the blackboard.

8.11.2 Hard time in answering questions or writing on the blackboard.

Figure 26 Distribution of ability to write on the blackboard.



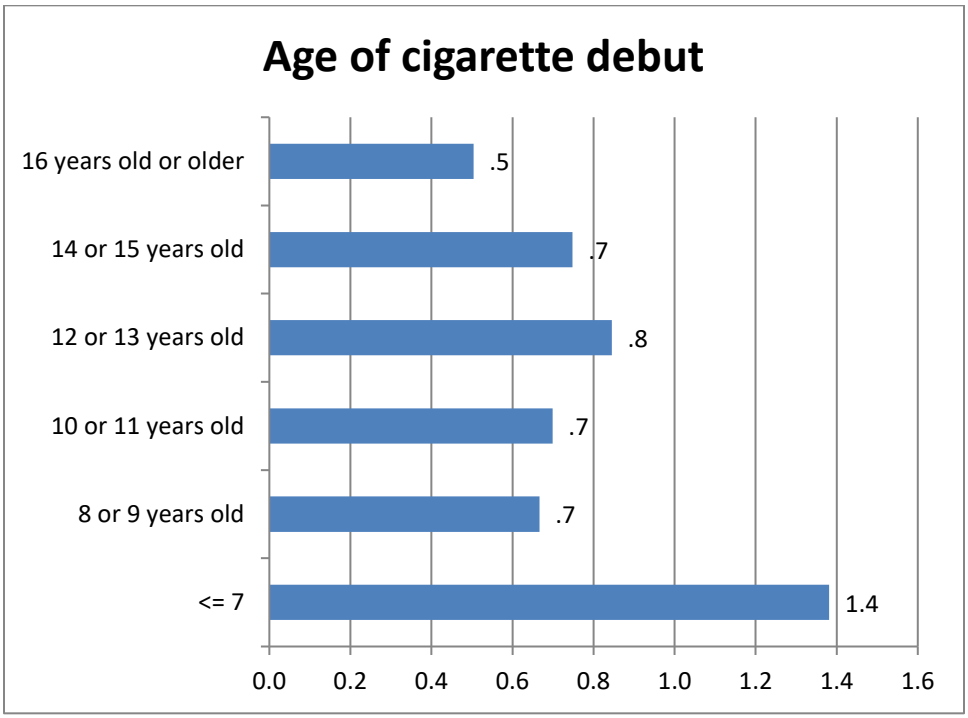
8.12 Addiction

It is a known fact that addictions early in life not only deters physical health but largely impairs mental health. We have explored the exposure of adolescents to many addictive substances such as cigarette, tobacco, alcohol and drugs.

8.12.1 Initiation to cigarette

It is rather concerning to observe that many adolescents have confirmed that by age seven (1.4 per cent) they have experienced smoking cigarette. By age 16 about five per cent of the sample have already experienced smoking cigarette.

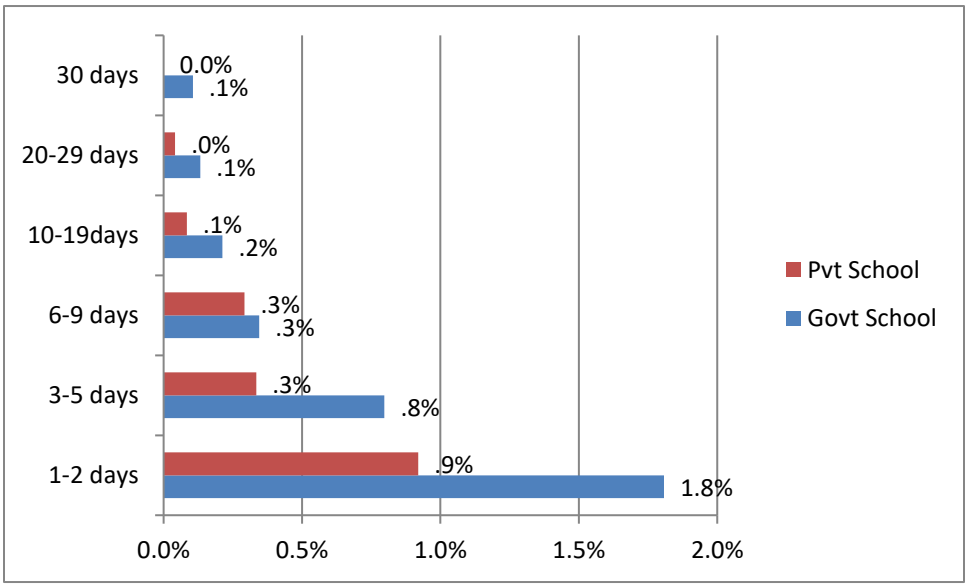
Figure 27 Distribution of age at cigarette debut



8.12.2 Smoking cigarette in last 30 days

Another observation is that the students in government schools have smoked cigarette more in the last 30 days than those studying in private schools.

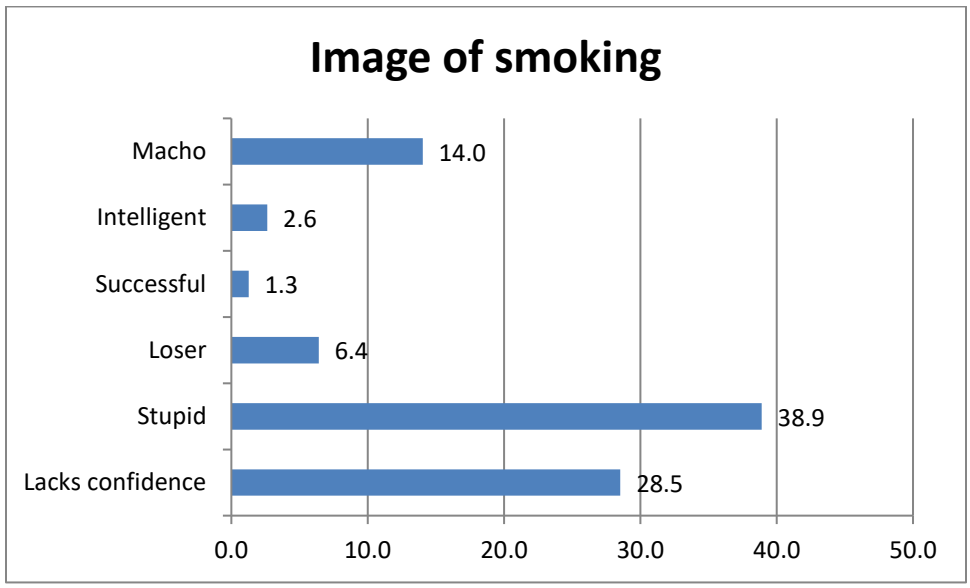
Figure 28 Smoking habit among adolescents in last 30 days.



8.13 Image of smoking

The image of smoking was explored among the participants. It was observed that about 18 per cent of the participants favourably perceived smoking cigarette. Specifically, 14 per cent perceive smoking to be a macho activity. This kind of favourable assessment of smoking has the potential to motivate these young people to take up smoking later in life.

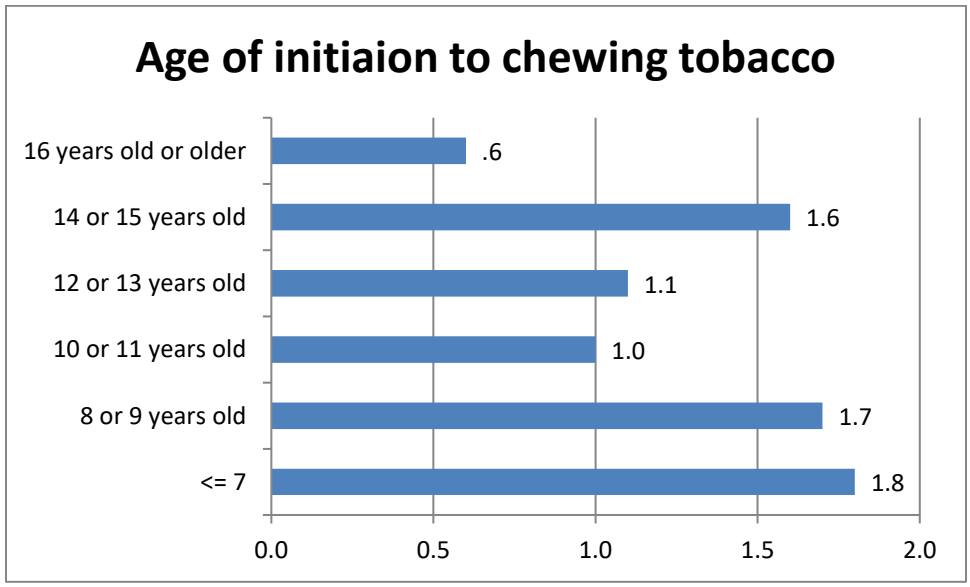
Figure 29 Image of smoking behaviour among adolescents in last 30 days



8.14 Chewing tobacco

The initiation of chewing tobacco is relatively high in the early ages compared to smoking cigarette. Again, an area that needs some immediate action to be undertaken to mitigate the situation.

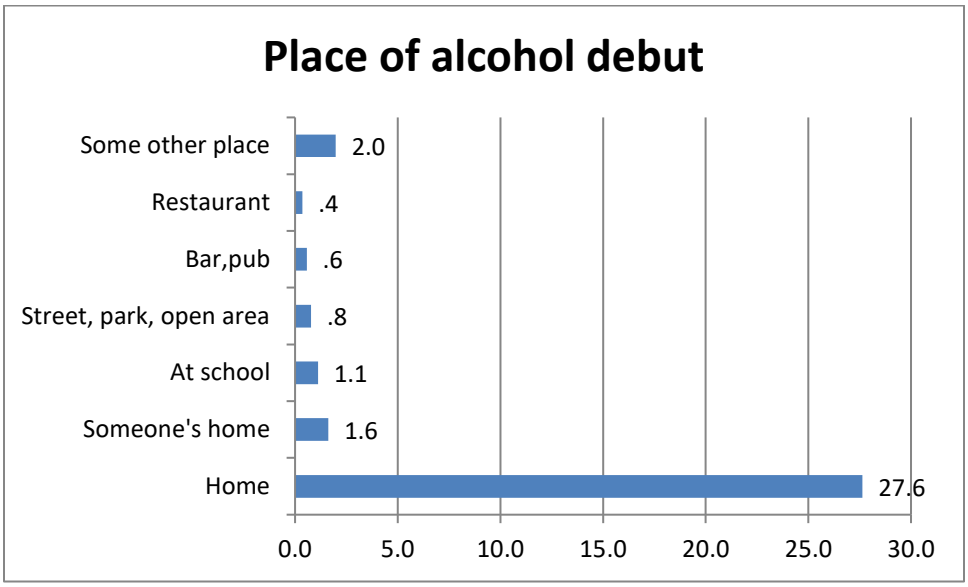
Figure 30 Distribution of age at tobacco debut



8.15 Alcohol

Out of those who confided that they have had an experience of alcohol were probed further as to where did they have their first experience. It is quite surprising to note that about 28 per cent had their first drink at home which indicates that many have easy access to it at home. Initiation to Alcohol consumption is higher among adolescents in government school than private school either at home (43% versus 3%) or at school (1.4% versus 0.7%).

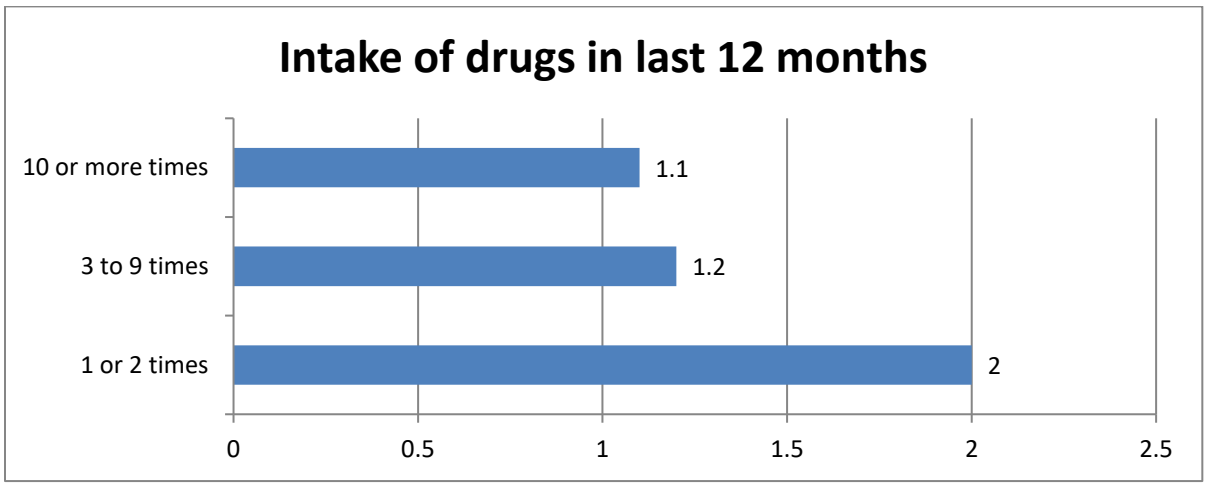
Figure 31 Distribution of place at which alcohol debut took place.



8.16 Drugs

When the participants were probed regarding the intake of drugs in the last 12 months, it became clear that 2 per cent have had drugs at least 1 to 2 times in the last 12 months. It might seem like a small proportion; however, given the size of the sample, this is a big number and warrants immediate action at our end to change the situation for good.

Figure 32 Distribution of drug intake in last 12 months



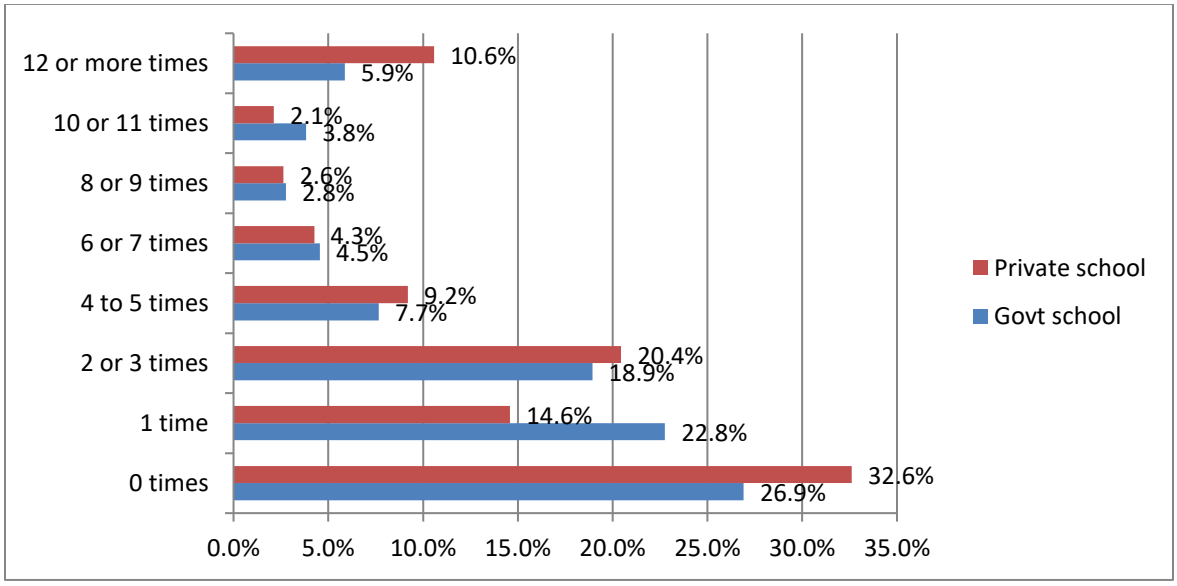
8.17 Safety and security at school

Another component of an adolescent's experience at school is the need to ensure that there is a safe and secure environment where they can learn and flourish. However, they might experience negative events where a teacher is verbally abusive or there are other reasons due to which the adolescents become truant.

8.18 Verbal abuse by teachers

The students were asked to reflect how often they have been verbally abused by teachers in the last 12 months. The descriptive suggest that those in private schools are more likely to report more frequent verbal abuse.

Figure 33 Distribution of verbal abuse by teachers in last 12 months



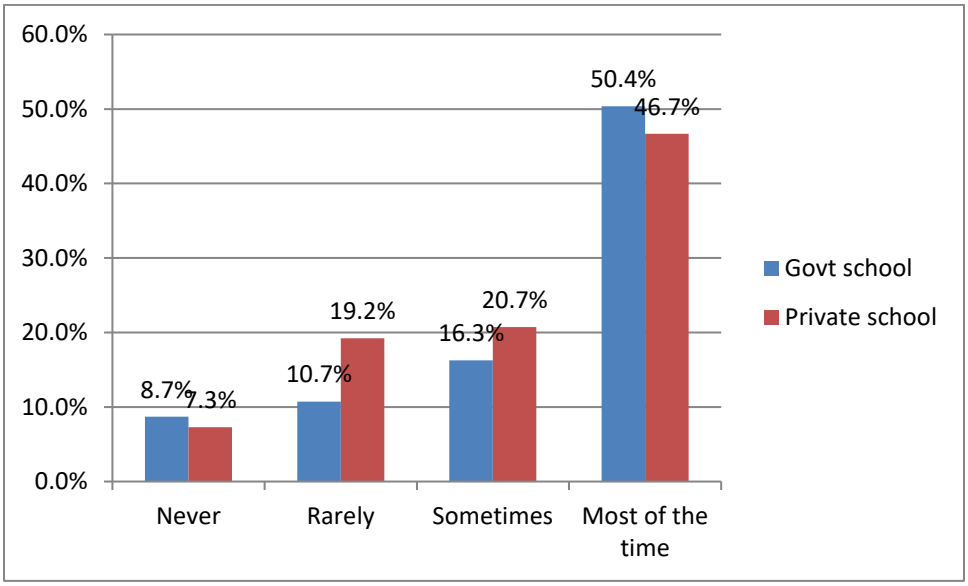
8.19 Hand wash

Hand washing is an important requirement for maintaining sanitation and ensures immunity against parasites that hamper physical health.

8.19.1 Use of soap while washing hand

There is still a lot of scope in encouraging adolescents to use soap while washing hands in both government and private schools.

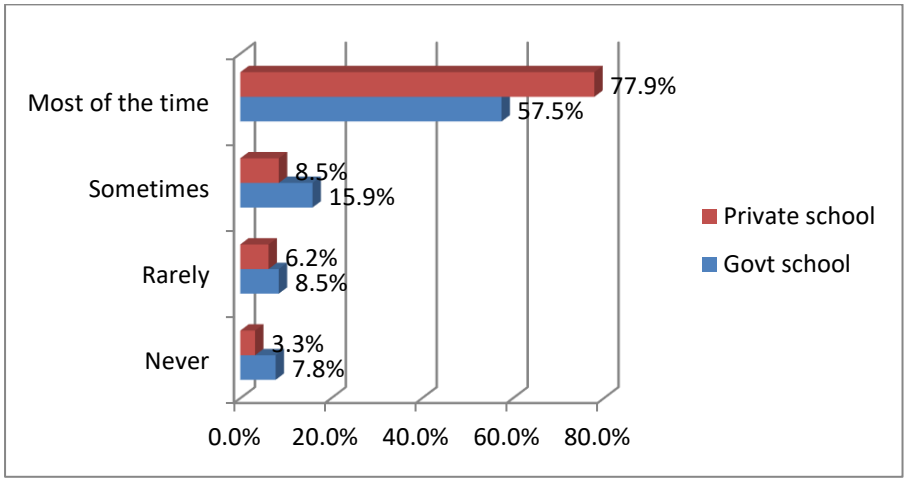
Figure 34 Distribution of soap use during hand wash



8.19.2 Use of soap after use of latrine or toilet

Those in private schools are most likely to use soap after the use of a toilet. However, there is still a large proportion of adolescents who never or rarely use soap after using toilet rather unacceptable (16 percent government schools and 9.5 percent in private schools). There is an immediate need to motivate adolescents in safe hand wash after ablution.

Figure 35 Distribution of soap use after use of toilet


Most of the time
Sometimes
Rarely
Never
77.9%
57.5%
8.5%
15.9%
6.2%
8.5%
3.3%
7.8%
0.0%
20.0%
40.0%
60.0%
80.0%
Private school
Govt school

9 Discussion

Tobacco: Our study findings show that 1.4% of students initiated smoking or smokeless tobacco product (such as chewing tobacco or betel quid with tobacco); current tobacco smoking is 1.8 %. About 69% reported first smoking tobacco before the age of 14 years among those who ever smoked. The initiation to chewing tobacco is around 1.7 %. According to WHO tobacco is the leading preventable cause of deaths worldwide. WHO report of 2014 for India, estimated a 60% proportional mortality rate attributable to tobacco? In addition to this, the coronary vascular disease made up 26%, cancer7%, chronic respiratory disease13%and diabetes2%. Multiple studies have shown tobacco usage in any form was found to be15.4%, alcohol consumption was 19.5%. Tobacco uses amongst children and adolescents is alarming as they are vulnerable to addiction forming and suffer long-term effects.

Physical health and nutrition of children: This study shows 62% underweight, 8% overweight and 1% obese children. The study also shows 18% anaemic. According to a World Bank report, nutrition during the school years is crucial for the physical, mental, and psychosocial development of children and adolescents aged 6 to 19 years. It is estimated that, across the developing world, 66 million school-age children go to school every day hungry. Attending classes hungry severely impacts children's and adolescents' abilities to learn, thrive, and realize their full potentials.(World Bank Group, 2018). Meeting the nutritional requirement for growth and development is critical in the puberty stage of adolescents. The integration of nutrition knowledge into nutritional behaviour can help children to develop a healthy lifestyle that may be carried forward into adulthood. Inadequate nutrition knowledge accompanied by unsatisfactory nutritional behaviour implied the students' lack of knowledge regarding the dietary recommendation and food choices. Nutrition education designed for adolescents should be unique to address their food access and dietary inquiry. Technological developments have created innovative opportunities in health education. Nutrition education delivered in eLearning brings the feature of behavioural feedback. Nutrition education involving behaviour feedback can effectively improve adolescents' nutrition knowledge and nutritional behaviour.(Chung & Fong, 2018)

Food habits/junk food among school children: The safe school study recognises 40% of the students reported drinking carbonated soft drinks one or more times per day and a similar proportion (45) reported eating junk food on two or more days in the past 7 days. On the other hand, only around 20 % of the students reported usually eating fruits two or more times per day and 18 % reported usually eating vegetables three or more times a day.

Eating habits in the growing phase largely influences physical and cognitive development during adolescence and the onset of non-communicable diseases. Awareness about proper dietary

guidelines and food environment, particularly the school food environment contributes greatly to dietary habits. In a study in the Netherlands, it was found that students from a low education level were more likely to purchase and consume unhealthy foods. Also, age was found to be positively associated with the purchase and consumption of junk/fast foods, older adolescents reported this habit more than younger ones (Hermans, Smit, Broek, Evenhuis, & Veldhuis, 2020). Maternal relationship and support were positively associated with consumption of fresh fruits and vegetables as well as less purchase of junk foods amongst both sexes and all ages (ibid). Availability of healthy foods at home is a crucial factor determining the food habits of adolescents. The quality of the parent-adolescent relationship can have an impact on the development of adolescent adverse health risk behaviours (ibid).

It is important to scrutinise the efforts made to control the school food environment in terms of what is provided in schools and what is available for consumption in the immediate premises. Studies have shown that the presence of fast-food outlets near schools lead to an increased probability of purchase and consumption and reduces the odds of intake of fruits and vegetables (He, et al., 2012). School feeding programs are beneficial for the physical, mental, and psychosocial development of school-age children and adolescents, particularly those in low- and middle-income countries (LMICs). There is no one-size-fits-all model for school feeding programs, however, some good practices have been identified that are applicable across countries, such as the inclusion of fruits and vegetables, the collaboration with local smallholder farmers, and the incorporation of school feeding programs as the component of a much broader curriculum of nutrition and health education. (Wang & Fawzi, 2020)

WASH at Schools: This study identifies that private schools are most likely to use soap after the use of a toilet. However, there is still a large proportion of adolescents who never or rarely use soap after using the toilet (16 percent government schools and 9.5 percent in private schools).

Inadequate wash conditions are associated with detrimental effects on health and attendance. There is widespread recognition that WASH infrastructure and resources are important foundations for hygiene behaviour change and reduced risk of WASH-related diseases. There is evidence that WASH in Schools programs have a positive impact on child health, including reductions in diarrhoeal disease and other hygiene-related diseases. The health benefits of improved WASH infrastructure and resources in schools may depend on consistent availability of soap and water for handwashing and on conditions of the latrines, not only pupil to latrine ratios. Access to WASH facilities and hygiene behaviour change education in schools contribute to inclusion, dignity, and equity. From a human rights perspective, WASH in schools is considered essential. (McMichael, 2019)

Schools with adequate water, sanitation and hygiene (WASH) facilities will be better provided if there is a reliable water system that provides safe and sufficient water, especially for hand-washing and drinking; a sufficient number of toilets for students and teachers that are private, safe, clean, and culturally and gender appropriate. This enables water-use and hand-washing facilities and sustained hygiene promotion. Facilities should cater to all, including small children, girls of menstruation age, and children with disabilities. (World Health Organization, 2009)

Mental health: Anxiety, Loneliness, Depression at Schools: Our study shows almost 15 per cent of these adolescents feel **lonely** most of the time or always. The loneliness is equally experienced by those studying in government as well as private schools. Further, 22 per cent of adolescents in the government schools had **difficulty sleeping** most or all the time due to one or the other worry. Those adolescents studying in private schools enjoyed relatively better sleep with 12 percent having difficulty sleeping. The feeling of **sadness** or hopelessness that they experienced for two weeks in a row in the last 12 months. It became apparent that those studying in government schools were experiencing sadness and **loneliness** as high as **41 percent**.

Loneliness and insomnia are two indicators of psychological distress in adolescents that are significantly associated with suicidal and other health risk behaviours, and poor health outcomes. Being bullied and fighting, important issues of violence in adolescents, have been found to be associated with psychological distress including loneliness, insomnia, suicidal ideas, and poor mental and physical health outcomes (Fleming & Jacobsen, 2010).

A study conducted in 32 low- and middle-income countries showed that factors associated with suicidal ideation included experiences of bullying and physical violence, loneliness, limited parental support, and alcohol and tobacco use in adolescents. Loneliness and insomnia, in turn, are reported as significant factors associated with a higher level of suicidal ideation and suicide attempts in-school adolescents. (McKinnon, Gariepy, Sentenac, & Elgar, 2016)

Verbal abuse/bully: Our study shows nearly 20% of the children experience 2-3 times verbal abuse at schools. In a study by Sharma et al, it was found that the participants who were bullied in the last 30 days prior to the survey or were in fights or injured in the last 12 months were more likely to report loneliness, and the odds of loneliness usually increased with the degree of exposure to bullying, fighting and injury. In the same study, it was observed that adolescents who were bullied in the last 30 days or were in fights or injured in the last 12 months were more likely to report insomnia. More importantly, the odds of insomnia usually increased with the increased frequency of being bullied or fighting or injured. Bullying, being in a fight and injury are serious public health problem in adolescents that require the attention of school administrations, educators,

parents, school health and public health professionals. School health authorities should consider the effect of bullying victimization, fighting and injury on the psychological health of students (Sharma, Lee, & Nam, 2017).

10 Conclusion

We have demonstrated the ability to identify concerns of students and schools using safe school survey tools. The study also helps to translate findings into safe school-based interventions aimed to minimise health risk concerns and relevant health outcomes. The interventions can be effectively achieved while engaging closely with schools, parents and community leaders.

The shock of the under-nourishment, mental health, early alcohol initiation, emotional imbalance crisis may have an unprecedented impact on education. The study findings offering an insight to set the clock back on the attainment of the highest education goals while addressing key concerns, and disproportionately affected the poorer and most vulnerable.

Strict monitoring of concerns at the school level and students' level along with supportive supervision has the potentiality to build resilient schools and can lay a groundwork for the rebound. There remains a benefit of an upward spiral, in a positive feedback loop of learning gain and inclusion.

Further, every positive spiral of supportive safe school environment incrementally has the potentiality to reverse image of serious concern to positive spiral, this could lead to the future of SAFE school education we want one of inclusive change in education delivery, of unleashing the potential of school children, and collective fulfilment, in all areas of life, through education investment.

There is an unlimited drive, and untapped resources, we can count on for the restoration, not only of safe school education's services but of its fundamental aspirations. It is the responsibility of governments, private school management, parents, community leaders and researchers to stay true to address concerns as identified in the study findings for future reforms. Thus, not only will the children from safe school environment regain their promised future, but all education stakeholders such as teachers, parents, safe school researchers, community leaders and others find their role in making it happen.

Specific recommendations are as follows:

School environment

1. Create a supportive school environment for students to develop healthy behaviours, especially on avoidance of tobacco, alcohol, drugs and junk foods.
2. Enforce the law on the sale and use of tobacco/alcohol/drugs to minors and anyone else as applicable.

School-parental network

3. Establish effective networks of parents and teachers and school management committees to create a better psychosocial environment. This will help to create better psychological support for students not only in schools but also at home.

Physical activity

4. Provide facilities and the environment for recreational physical activity and include physical activity classes in the school curriculum and class schedule.

Water, sanitation and hygiene

5. Ensure clean running water at schools.
6. Hygiene practices among students needed ample scope for improvement to attain potential health benefits.
7. Provide soap and running water facilities to enable handwashing after using the toilet.
8. Many Wash facilities needed improvement, especially for early-grade students, girls, and students with disabilities.

Food habits, environment

9. Restrict the marketing and sale of unhealthy foods and drinks to children, especially in and around the school premises, and a possible ban on the sale of sugary drinks in school, if feasible.
10. Formulate a policy on schools/ mid-day meal canteens so that they provide healthy food such as fruit, vegetables, and those that are low in salt, saturated fat, trans-fatty acids and free sugars; and provide safe, free, drinking water.

Verbal abuse/anti-bullying policy at schools

11. Ensure a zero-tolerance to verbal abuse/bullying policy.
12. Update curricula on healthy eating guidelines for children, mental health education, what to do about bullying, how to seek help if feeling lonely or contemplating suicide, and drug-use Education.

Safe-school certification and assessment

13. Facilitate safe school survey at a regular interval (preferably every 2 years) to understand the status of school and children concerns!
14. Use appropriate technological solutions to such as mobile app, helpline, data capture automation to scale the program to all the schools across the state.

11 References

Chung, L. M., & Fong, S. S. (2018). Role of behavioural feedback in nutrition education for enhancing nutrition knowledge and improving nutritional behaviour among adolescents. *Asia Pacific Journal of Clinical Nutrition*, 466-472.

Fleming, L. C., & Jacobsen, K. H. (2010). Bullying among middle-school students in low and middle income countries. *Health Promotion International*.

He, M., Tucker, P., Gilliland, J., Irwin, J. D., Larsen, K., & Hess, P. (2012). The Influence of Local Food Environments on Adolescents' Food Purchasing Behaviors. *International journal of enviironmental research and public health*.

Hermans, R. C., Smit, K., Broek, N. v., Evenhuis, I. J., & Veldhuis, L. (2020). Adolescents' Food Purchasing Patterns in The School. *Nutrients*.

McKinnon, B., Gariepy, G., Sentenac, M., & Elgar, F. J. (2016). *Adolescent suicidal behaviours in 32 low- and middle-income countries.* World Health Organ.

McMichael, C. (2019). Water, Sanitation and Hygiene (WASH) in Schools in Low-Income Countries: A Review of Evidence of Impact. *Internationa Journal of Environmental Research and Public Health*.

Sharma, B., Lee, T. H., & Nam, E. W. (2017). Loneliness, Insomnia and Suicidal Behavior among School-Going Adolescents in Western Pacific Island Countries: Role of Violence and Injury. *International Journal of Environmental Research and Public Health*.

Wang, D., & Fawzi, W. W. (2020). Impacts of school feeding on educational and health outcomes of school-age children and adolescents in low- and middle-income countries: protocol for a systematic review and meta-analysis. *Systematic Reviews*.

World Bank Group. (2018). *Re-Imagining School Feeding: A High Return investment in human capital and local economies.*

World Health Organization. (2008). *World Report on Child Injury Prevention.*

World Health Organization. (2009). *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings* .

Annexures

Annexure-1: Part-1: Safe school assessment checklist

Introduction

Namaste,

My name is [field investigator's name:_____], I work for [name of organization:_____] I am going to explain the purpose of this study and explain the components of this questionnaire. We are aspiring to make schools a safe space for adolescents. In order to assess that we have a school component which I will fill and there is an adolescent component with three sections which I will request you to fill on your own. Instructions are given on the sheets that I will distribute shortly.

Date of assessment:

Name of the school: _____

Address: _____

_____

Name of the school headmaster: _____

Phone number: _____

Email: _____

Name of the safe school in charge teacher: _____

Phone:

Email:

Sr. No.	Criteria	Points	Score
1	Display of health promoting school policy in school or visitors' area	10	
	Infrastructure, Hygiene, and sanitation facilities		
2	Clean water/hand-washing facility available	10	
2.1	Dustbins available and proper garbage disposal	10	
2.2	Separate bathrooms for boys and girls	10	
2.3	Bathrooms are cleaned twice a day	10	
2.4	Information on hygiene and sanitation is displayed in classrooms and bathrooms	10	
	Adequately maintained school infrastructure		
2.5	-proper sitting arrangements and well-ventilated classrooms	10	
2.6	-Proper and quite reading hall in the libraries	10	
2.6	-Well constructed furniture for the students and staff	10	
	Nutrition		
3	Does the school provide mid-day-meals (if available) /canteen?	10	
3.1	Healthy food choices are available everyday/mid-day meal/ canteens	10	
4	Food is prepared hygienically in mid-day meals/canteen	10	
	Physical activity		
5	All students participate in sports/physical activity everyday (e.g. at least one supervised games/PE period everyday)	10	
	Tobacco prevention		
6	Presence of government notified boards clearly stating the following at multiple places in the school campus "No Smoking Area: Smoking here is an offence"	10	
6.1	"Sale of cigarettes and other tobacco products in an area within a radius of 100 yards from the educational institution is strictly prohibited, and that the offence is punishable with a fine which may extend to Rs 200."	10	
	Health curriculum		
7	Inclusion of the following themes in the school curriculum		
7.1	• Know your Body	10	
7.2	• Food & Nutrition	10	
7.3	• Physical Activity	10	
7.4	• Infrastructure, Hygiene & Sanitation	10	

7.5	• Life Skills & Behaviour	10	
7.6	• Tobacco control	10	
7.7	• Environmental education	10	
	Participatory health promotion		
8	Existence of a School Health Advisory Committee for overseeing the health promotion programme and its monitoring	10	
9	Family & Community involvement in school health programme (e.g. through PTA, school links with health services etc.)	10	
	Health training		
10	Training provided by schools in first aid and referrals for health issues to at least one teacher	10	
10.1	• To students	10	
	Health check-up		
11	Regular health check-up organized by the school FOR all students	10	
11.1	• for school staff	10	
	Health school policies		
12	Healthy school policies exist (e.g. canteen/mid-day-meal menu policies, tobacco control policies, anti-corporal punishment policies, etc.)	10	
13	Display of IEC materials on various themes	10	
		300	
	If for the above-mentioned criteria, the school scores > 240 points (80%) the school shall be deemed as eligible for SAFE school seal of approval by IIPH-BANGALORE		

Annexure-2: Part-2 Adolescent Screening-Self-administered questionnaire

This survey is about your health and the things you do that may affect your health. Students like you all over 14 schools are doing this survey. The information you give will be used to develop better health programs for young people like yourself.

DO NOT write your name on this survey or the answer sheet. The answers you give will be kept private. No one will know how you answer. Answer the questions based on what you really know or do. There are no right or wrong answers.

Completing the survey is voluntary. Your grade or mark in this class will not be affected whether or not you answer the questions. If you do not want to answer a question, just leave it blank.

Make sure to read every question. Fill in the circles on your answer sheet that match your answer. Use only the pencil you are given. When you are done, do what the person who is giving you the survey says to do.

Here is an example of how to fill in the circles:

Fill in the circles like this  Not like this  or  

Survey

1. Do fish live in water?
   A. Yes
   B. No

Answer sheet

1.  B C D E F G H

Thank you very much for your help.

1. How old are you?

   A. 11 years old or younger
   B. 12 years old
   C. 13 years old
   D. 14 years old
   E. 15 years old
   F. 16 years old or older

2. In what class are you?

   A. Class 6
   B. Class 7
   C. Class 8
   D. Class 9
   E. Class 10
   F. Class 11

3. What is your sex?

   A. Male
   B. Female

The next 5 questions ask about your height, weight, and going hungry.

4. How tall are you without your shoes on? ON THE ANSWER SHEET, WRITE YOUR HEIGHT IN THE SHADED BOXES AT THE TOP OF THE GRID. THEN FILL IN THE OVAL BELOW EACH NUMBER.

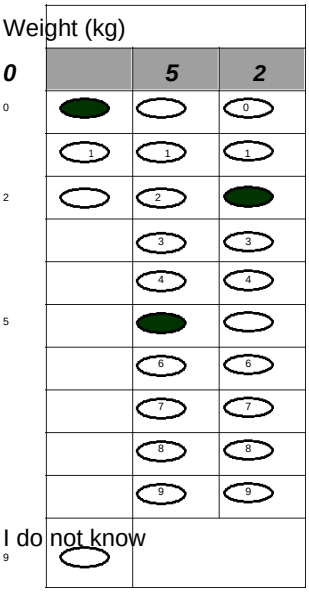
Example

Height (cm)

1		*5*	*3*
	0	0	0
	1	1	1
	2	2	2
		3	3
		4	4
5		5	
		6	6
		7	7
		8	8
		9	9
9	I do not know		

5. How much do you weigh without your shoes on? ON THE ANSWER SHEET, WRITE YOUR WEIGHT IN THE SHADED BOXES AT THE TOP OF THE GRID. THEN FILL IN THE OVAL BELOW EACH NUMBER.

Example



6 How do you describe your weight?

A. Very underweight
B. Slightly underweight
C. About the right weight
D. Slightly overweight
E. Very overweight

7 Which of the following are you trying to do about your weight?

F. I am **not trying to do anything** about my weight
G. **Lose** weight
H. **Gain** weight
I. **Stay** the same weight

8 During the past 30 days, how often did you go hungry because there was not enough food in your home?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

The next 4 questions ask about foods you might eat and drinking and eating habits.

9 During the past 30 days, how many times per day did you **usually** eat fruit, such as apple, mango, banana, pineapple, papaya, jackfruit, guava, or chikoo?

A. I did not eat fruit during the past 30 days
B. Less than one time per day
C. 1 time per day
D. 2 times per day
E. 3 times per day
F. 4 times per day
G. 5 or more times per day

10 During the past 30 days, how many times per day did you **usually** eat vegetables, such as cauliflower, ladyfinger, pumpkin, brinjal, cabbage, spinach, peas, tomato, cucumber, or beans?

H. I did not eat vegetables during the past 30 days
I. Less than one time per day
J. 1 time per day
K. 2 times per day
L. 3 times per day
M. 4 times per day
N. 5 or more times per day

11 During the past 30 days, how many times per day did you usually drink carbonated soft drinks, such as Coke, Pepsi, Limca, or Fanta?

A. I did not drink carbonated soft drinks during the past 30 days
B. Less than 1 time per day
C. 1 time per day
D. 2 times per day
E. 3 times per day
F. 4 times per day
G. 5 or more times per day

12 During the past 7 days, on how many days did you eat at a fast food restaurant, such as McDonalds, Pizza Hut, or at those serving quick meals (eg. Samosas, patties, burgers, noodles, tikkis, or ice creams)?

H. 0 days
I. 1 day
J. 2 days
K. 3 days
L. 4 days
M. 5 days
N. 6 days
O. 7 days

The next 2 questions ask about the benefits of healthy eating or eating more fruits and vegetables.

13. During this school year, were you taught in any of your classes the benefits of healthy eating?

A. Yes
B. No
C. I do not know

14. During this school year, were you taught in any of your classes the benefits of eating more fruits and vegetables?

A. Yes
B. No
C. I do not know

The next 7 questions ask about personal health activities.

15. During the past 30 days, how many times per day did you **usually** clean or brush your teeth?

A. I did not clean or brush my teeth during the past 30 days.
B. Less than 1 time per day
C. 1 time per day
D. 2 times per day
E. 3 times per day
F. 4 or more times per day

16. During the past 30 days, how often did you wash your hands before eating?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

17. Is there a place for you to wash your hands before eating at school?

A. Yes
B. No

18. During the past 30 days, how often did you use soap when washing your hands?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

19. During the past 30 days, how often did you wash your hands after using the toilet or latrine?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

20. Are there separate toilets or latrines for boys and girls at school?

A. There are no toilets or latrines at school
B. Yes
C. No

21. Are the toilets or latrines clean at school?

A. There are no toilets or latrines at school
B. Yes
C. No

The next question asks about toothaches.

22. During the past 12 months, did a toothache cause you to miss classes or school?

A. Yes
B. No

The next question asks about clean drinking water.

23. Is there a source of clean water for drinking at school?

A. Yes
B. No

The next 3 questions ask about injury, verbal abuse, and feeling unsafe.

24. During the past 12 months, **what were you doing** when the most serious injury happened to you?

A. I was not seriously injured during the past 12 months.
B. Playing or training for a sport
C. Walking or running, but not as part of playing or training for a sport.
D. Riding a bicycle, scooter, or bike
E. Riding or driving in a car or other motor vehicle.
F. Doing any paid or unpaid work, including housework, yard work, or cooking
G. Nothing
H. Something else

25. During the past 12 months, how many times were you verbally abused by a teacher?

A. 0 times
B. 1 time
C. 2 or 3 times
D. 4 or 5 times
E. 6 or 7 times
F. 8 or 9 times
G. 10 or 11 times
H. 12 or more times

26. During the past 30 days, on how many days did you **not** go to school because you felt you would be unsafe at school or on your way to or from school?

A. 0 days
B. 1 day
C. 2 or 3 days
D. 4 or 5 days
E. 6 or more days

The next 7 questions ask about your feelings and friendships.

27. During the past 12 months, how often have you felt lonely?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

28. During the past 12 months, how often have you been so worried about something that you could not sleep at night?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

29. During the past 12 months, did you ever feel so sad or hopeless almost every day for **two weeks or more in a row** that you stopped doing your usual activities?

A. Yes
B. No

30. How many close friends do you have?

A. 0
B. 1
C. 2
D. 3 or more

31. During the past 12 months, how often have you had a hard time staying focused on your homework or other things you had to do?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

32. During the past 12 months, how often have you had a hard time answering questions or writing on the blackboard in front of your class?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

33. During the past 12 months, how often have you felt disturbed due to the comments from your peers, family members, or teachers?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

The next 8 questions ask about cigarette and other tobacco use.

34. How old were you when you first tried a cigarette?

A. I have never smoked cigarettes
B. 7 years old or younger
C. 8 or 9 years old
D. 10 or 11 years old
E. 12 or 13 years old
F. 14 or 15 years old
G. 16 years old or older

35. During the past 30 days, on how many days did you smoke cigarettes?

A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

36. During the past 30 days, on how many days did you use any other form of tobacco, such as pan, masala, or gutka?

A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

37. Which of your parents or guardians use any form of tobacco?

A. Neither
B. My father or male guardian
C. My mother or female guardian
D. Both
E. I do not know

38. When you see a man smoking, what do you think of him? SELECT ONLY ONE RESPONSE.

a. Lacks confidence
b. Stupid
c. Loser
d. Successful
e. Intelligent
f. Macho

The next 1 questions ask about role of the media and smoking.

39. During the past 30 days, how many anti-smoking media messages (such as television, radio, billboards, posters, newspapers, magazines, and movies) have you seen?

A. A lot
B. A few
C. None

The next 2 questions ask about chewing tobacco.

40. How old were you when you first chewed tobacco?

a. I have never chewed tobacco
b. 7 years old or younger
c. 8 or 9 years old
d. 10 or 11 years old
e. 12 or 13 years old
f. 14 or 15 years old
g. 16 years old or older

41. During the past 12 months, have you ever tried to stop chewing tobacco?

a. I have never chewed tobacco
b. I did not chew tobacco during the past 12 months
c. Yes
d. No

The next 4 questions ask about the role of alcohol. This includes drinking Vodka, beer, or whiskey. Drinking alcohol does not include drinking a few sips of wine for religious purposes.

42. Where were you the first time you had a drink of alcohol?

A. I have never had a drink of alcohol
B. At home
C. At someone else's home
D. At school
E. Out on the street, in a park, or in some other open area
F. At a bar, pub, or disco
G. In a restaurant
H. Some other place

43. During this school year, were you taught in any of your classes the dangers of alcohol use?

I. Yes
J. No
K. I do not know

44. Which of your parents or guardians drink alcohol?

A. Neither
B. My father or male guardian
C. My mother or female guardian
D. Both
E. I do not know

45. When you watch television, videos, or movies, how often do you see actors drinking alcohol?

A. I never watch television, videos, or movies
B. Never
C. Rarely
D. Sometimes
E. Most of the time
F. Always

The next question asks about drugs.

46. During the past 12 months, how many times have you used drugs, such as inhaling any fluid, using Charas, or Ghanja?

A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 or more times

The next 2 questions ask about physical activity. Physical activity is any activity that increases your heart rate and makes you get out of breath some of the time. Physical activity can be done in sports, playing with friends, or walking to school. Some examples of physical activity are running, fast walking, biking, dancing, or football.

ADD UP ALL THE TIME YOU SPEND IN PHYSICAL ACTIVITY EACH DAY. DO **NOT** INCLUDE YOUR PHYSICAL EDUCATION OR GYM CLASS.

47. During the past **7 days**, on how many days were you physically active for a total of at least 60 minutes per day?

A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

48. During a **typical or usual** week, on how many days are you physically active for a total of at least 60 minutes per day?

A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

The next 2 questions ask about physical education class and stretching exercises.

49. During this school year, on how many days did you go to physical education class each week?

A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 or more days

50. During the past 7 days, on how many days did you do stretching or strengthening exercises, such as toe touches, knee bends, or push-ups?

B. 0 days
C. 1 day
D. 2 days
E. 3 days
F. 4 days
G. 5 days
H. 6 days
I. 7 days

The next question asks about hours of sleep per day.

51. Typically, how many hours do you sleep per day?

A. Less than 4 hours
B. 4 to 6 hours
C. 6 to 8 hours
D. 8 to 10 hours
E. More than 10 hours

The next question asks about the time you spend mostly sitting when you are not in school or doing homework.

52. How much time do you spend during a **typical or usual** day sitting and watching television, playing computer games, talking with friends, or doing other sitting activities, such as listening to music?

A. Less than 1 hour per day
B. 1 to 2 hours per day
C. 3 to 4 hours per day
D. 5 to 6 hours per day
E. 7 to 8 hours per day
F. More than 8 hours per day

The next 2 questions ask about going to and coming home from school.

53. During the past 7 days, on how many days did you walk or ride a bicycle to and from school?

A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

54. During the past 7 days, how long did it **usually** take for you to get to and from school each day? ADD UP THE TIME YOU SPEND GOING TO AND COMING HOME FROM SCHOOL.

A. Less than 10 minutes per day
B. 10 to 19 minutes per day
C. 20 to 29 minutes per day
D. 30 to 39 minutes per day
E. 40 to 49 minutes per day
F. 50 to 59 minutes per day
G. 60 or more minutes per day

The next 5 questions ask about your experiences at school and at home.

55. During the past 30 days, on how many days did you miss classes or school without permission?

A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 or more days

56. During the past 30 days, how often were most of the students in your school kind and helpful?

F. Never
G. Rarely
H. Sometimes
I. Most of the time
J. Always

57. During the past 30 days, how often did your parents or guardians check to see if your homework was done?

K. Never
L. Rarely
M. Sometimes
N. Most of the time
O. Always

58. During the past 30 days, how often did your parents or guardians understand your problems and worries?

A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

59. During the past 30 days, how often did your parents or guardians **really** know what you were doing with your free time?

F. Never
G. Rarely
H. Sometimes
I. Most of the time
J. Always

Annexure-3: Part 3: Self-reported adolescent mental well-being screening

For each item, please mark the box for **Not True, Somewhat True or Certainly True**. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of how things have been for you over the last six months.
School name:_____
Address of school:_____

Your Name .....

Male/Female Class:_____ Date:

Date of Birth.....

	Not True	Somewhat True	Certainly True
I try to be nice to other people. I care about their feelings	☐	☐	☐
I am restless, I cannot stay still for long	☐	☐	☐
I get a lot of headaches, stomach-aches or sickness	☐	☐	☐
I usually share with others (food, games, pens etc.)	☐	☐	☐
I get very angry and often lose my temper	☐	☐	☐
I am usually on my own. I generally play alone or keep to myself	☐	☐	☐
I usually do as I am told	☐	☐	☐
I worry a lot	☐	☐	☐
I am helpful if someone is hurt, upset or feeling ill	☐	☐	☐
I am constantly fidgeting or squirming	☐	☐	☐
I have one good friend or more	☐	☐	☐
I fight a lot. I can make other people do what I want	☐	☐	☐
I am often unhappy, down-hearted or tearful	☐	☐	☐
Other people my age generally like me	☐	☐	☐
I am easily distracted, I find it difficult to concentrate	☐	☐	☐
I am nervous in new situations. I easily lose confidence	☐	☐	☐
I am kind to younger children	☐	☐	☐
I am often accused of lying or cheating	☐	☐	☐
Other children or young people pick on me or bully me	☐	☐	☐
I often volunteer to help others (parents, teachers, children)	☐	☐	☐
I think before I do things	☐	☐	☐
I take things that are not mine from home, school or elsewhere	☐	☐	☐
I get on better with adults than with people my own age	☐	☐	☐
I have many fears, I am easily scared	☐	☐	☐
I finish the work I'm doing. My attention is good	☐	☐	☐

Do you have any other comments or concerns?

Annexure-4: Self-reported adolescent self-esteem screening

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.
Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1.	On the whole, I am satisfied with myself.	SA	A	D
2.*	At times, I think I am no good at all.	SA	A	D
3.	I feel that I have a number of good qualities.	SA	A	D
4.	I am able to do things as well as most other people.	SA	A	D
5.*	I feel I do not have much to be proud of.	SA	A	D
6.*	I certainly feel useless at times.	SA	A	D
7.	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D
8.*	I wish I could have more respect for myself.	SA	A	D
9.*	All in all, I am inclined to feel that I am a failure.	SA	A	D
10.	I take a positive attitude toward myself.	SA	A	D

Annexure-5: Physical Health Screening

Name of school:_____

Name of the student: _____

Phone number/parents phone number: _____

Email: _____

Class/std:

Date of birth:

Age: _____

Male/female/others

Height in cms_____

Weight in kgs_____

Haemoglobin in gms%_____

Vision : R eye_____

L eye_____

Oral health: cavities/any other issues:…….

NAME OF HEALTH WORKER: _____