

## ORIGINAL ARTICLE

## HEALTH RISK BEHAVIOURS AMONG ADOLESCENTS IN SCHOOLS OF KAVRE

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## ABSTRACT

**Background:** Health risk behaviors is increasing as a serious health threat and alarming issue in worldwide. The objective of the study was to find out the health risk behaviors among adolescents in schools of Kavre.

**Method:** A descriptive cross-sectional design was carried out among 110 adolescent's students in schools of Kavre using non-probability purposive sampling technique. Data was collected through self-administered questionnaire technique by using Global School Based Student Health Survey tool and analyzed by descriptive statistics using SPSS 25.

**Results:** More than half (54.5%) of adolescents were seriously injured where Only (18.5%) of them were physically attacked, less than half (31.8%) were involved in physical fight. Only 6.4% of them had sexual intercourse. Nearly half (41.4%) of them were current alcohol user and Half (50.0%) of them smoked cigarettes. Among them 20 % of them first drank alcohol, 10.9% of them first smoked at age before 14 years. Less than half (31.8 %) of them didn't involve in physical activity. Only 7.3% and 6.4% of them didn't eat fruits and vegetables. Most (79.1%) of them consumed fast food.

**Conclusion:** Regarding health risk behaviours more than half of the adolescent students engage in unintentional injury. Few of them involve in sexual behaviours. Nearly half of them are current alcohol and cigarette smoker. Less than half of the adolescent's student aren't involve in physical activity. Most of them prefer fast food. Thus, health promoting behaviors can be planned and organized in a school for adolescents' student.

**Keywords:** Adolescent students, Health Risk Behaviours, Schools

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## INTRODUCTION

Health risk behaviours are increasing as a serious health threats and alarming issue in worldwide. Health risk behaviours which are frequently started in adolescence contribute to worldwide burden of non-communicable disease. With change in lifestyle and unfamiliar life condition many students get engage in wide range of unhealthy habits<sup>1</sup>

Globally the health risk behaviors are more common among adolescents 14-19 years age group. Over 1.5 million adolescents and young adults aged 10-24 died in 2020 nearly 5000 every day. Unintentional injuries are the leading cause of death and disability among adolescents. In the global scenario, over 135000 adolescents died as a result of road traffic accidents. Harmful drinking is also a major concern in many countries. It reduces self-control and increases risky behaviors, such as unsafe sex or dangerous driving. Likewise, at least one in ten adolescents aged 13 to 15 years uses tobacco products while one in six adolescents where found to be overweight. Globally the leading cause of death for 15 – 19-year-old girl regarding the early pregnancy and childbirth is due to the complications from pregnancy and childbirth resulting low birth weight and increasing in maternal mortality rate.<sup>2</sup>

In China 6.3% of the students drank alcohol, 25.0% of the students' used drugs and 13.3% of the students had sexual intercourse. In India 13.30% of the students smoked, 19.95 % of the students drank alcohol. Similarly in Nepal 9% of the adolescent had sexual intercourse, 35.5% of the adolescent smoked used tobacco daily and 22% of the adolescent smoked

A cross sectional study among adolescent high school students of urban Raichur district, Karnataka were the consumption of fruits, vegetables, energy dense beverages and energy dense snacks/ fast foods was 39%, 37.6%, 42.2% and 72.5% respectively. 39.5% of students had regular physical activity, 23.1% spent more than three hours watching TV/ playing computer games. The prevalence of tobacco smoking, smokeless forms of tobacco, alcohol among the students in past 30 days were 5.5%, 6.3% and 5.4% respectively. 37.9% of students reported to have experienced passive tobacco smoking<sup>4</sup>.

A study conducted by Global School Based Student Survey Nepal among 6529 participants from class 7- 11 reported that 74.6% of the adolescents tried alcohol, 78.1% of the adolescents tried cigarettes before the age of 14 years, 11% of them were underweight, 75% of them consumed fast food, 4.1% of them engaged in using drugs, 81.7% of them used marijuana at least once in life, 66.9% of them have sexual intercourse before 14 years, 49.9% of them doesn't involve in physical activity and 39.3% of them involved in physical fight<sup>5</sup>.

Thus, health risk behaviours is a growing health problem in adolescents and is at the increasing rate but there are limited published studies on health risk behaviours in Nepal. Adolescents is a time of risk taking and experimentation. Therefore, it is essential to understand and enhance health-promoting behaviors among adolescents.

## METHODOLOGY

A descriptive cross-sectional research design was used to find out the Health Risk Behaviours among adolescents in schools of Kavre during the period of 8 weeks from 2079/10/6-2079/12/3. Non-probability purposive sampling was carried out for the selection of 110 adolescent students aged 14-19 years studying in grade (9 and 10) from two private school namely Kavre English Secondary School, Arunodaya English Secondary located in Panauti, Kavre ward no. 4. An ethical approval obtained from institutional review committee (IRC) MMIHS.

Voluntary consent was taken and the data was collected by the Self-Administered Questionnaire Method through the structured questionnaire regarding sociodemographic characteristics.

Health risk behavior was assessed through Global School-Based Student Health (GSHS) Survey questionnaire's is a validated tool developed by the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) in collaboration with UNICEF, UNESCO and UNAIDS. The questionnaire consists violence and unintentional injury related 8 questions, sexual behaviours related 5 questions, alcohol use related 6 questions, drug use related 4, tobacco use related 6 questions, physical activity related 4 questions, dietary behaviours related 7 questions.

Data was analyzed using descriptive statistical method such as frequency, percentage, median and Interquartile Range (IQR).

## RESULTS

A total 110 Adolescent Students includes from two private schools during 8 weeks period who met the defined inclusion criteria. Almost all (94.5 %) of the respondents belonged to age group 14-16 years likewise more than half (57.3%) of the respondents were male. More than half (59.1%) of the respondents were studying at grade nine. Most (80%) of the respondents follow Hindu religion. The majority (63.6%) of the respondents were from nuclear family. Cent percent of respondents father could read and write were nearly half (40.9%) of them had studied secondary level. Only 29.1% of the respondents' father were involved in business. Nearly half (47.3%) of the respondents mother were Homemaker. As regard to the family economy, nearly half (46.4%) of the respondents income was enough and surplus.

### Unintentional Injury of the Respondents

Nearly half (45.5%) of the respondents were not seriously injured during past 12 months. Only 2.7% of the respondents were injured 4 or 5 times during past 12 months. Among most serious injury nearly half 46.6% answered something else happened whereas 40 % of the respondents answered something else caused injury as major cause of serious injury during past 12 months.

Table 1 depicts that most (85.5%) of the respondents were not physically attacked during past 12 months. Among them only 1.8% of the respondents were attacked 12 or more times. Majority (68.2%) of the respondents were not in physical fight and All most all (93.6%) of the respondents were not bullied on school property.

Table 2 represents almost all (93.6%) of the respondents didn't have sexual intercourse. Most (85.8%) of the respondents had

first sexual intercourse at age of 14 years. Cent percent of the respondent used condom during their last sexual intercourse.

### Alcohol Use of the Respondents (n =110)

Majority (73.7%) of the respondents never had a drink of alcohol other than a few sips. Only 20% of the respondents had drank alcohol for the first time before the age of 14 years. More than half (58.6 %) of the respondents didn't drink at least one drink containing alcohol. Only 3.7% of the respondents drank alcohol 10 to 19 days during past 30 days. Nearly half (41.6%) of the respondents drank less than one drink. Among them 41.6% of the respondents usually got alcohol from shop or street vendor during past 30 days. Majority (68.9%) of the respondents were really drunk during life for 1 or 2 times.

**Table 1: Involvement in Violence of the Respondents**

Variables	Number	Percent
<b>Physically attacked during past 12 months</b>		
0 times	94	85.5
1 time	6	5.5
2 or 3 times	4	3.6
4 or 5 times	4	3.6
12 or more times	2	1.8
<b>Physical fight during past 12 months</b>		
0 times	75	68.2
1 times	18	16.4
2 or 3 times	10	9.1
4 or 5 times	1	0.9
6 or 7 times	3	2.7
12 or more times	3	2.7
<b>Bullied on school property</b>		
Yes	7	6.4
No	103	93.6
<b>Bullied not on school property</b>		
Yes	13	11.8
No	97	88.2
<b>Cyber bullied</b>		
Yes	10	9.1
No	100	90.9

### Drug Use of the Respondents(n=110)

Almost all (99.1%) of the respondents had never used drug. Less than one percent (0.9%) have used drug before age 14 years. Among them 0.9% of the respondents used drug more than one times during the life whereas 0.9% of the respondents' used amphetamines and methamphetamines for non-medical purpose more than 10 to 19 times during life.

### Tobacco Use of the Respondents(n=110)

Most (89.1%) of the respondents did not try smoking cigarettes. Only 10.9 % of the respondents had tried smoking cigarettes before reaching the age of 14 years. More than half (50%) of the respondents did not smoke cigarettes during past 30 days however 16.7% of the respondents currently smoked cigarettes all 30 days. Almost all (99.1%) of the respondents did not used tobacco products whereas 0.9% of the respondents used tobacco products other than cigarettes for 1 or 2 days during past 30 days. Less than half (33.4%) of the respondents had tried to stop smoking cigarettes during the past 12 months. Majority (74.4%) of the respondents were not exposed to second hand smoking whereas only 6.4% were exposed to second hand smoking 3 or 4 days.

**Table 2 :Sexual Behaviors of the Respondents**

Variables	Num-	Percent
<b>Ever had sexual intercourse</b>		
Yes	7	6.4
No	103	93.6
<b>Age of first sexual intercourse (n=7)</b>		
12 years old	1	14.2
14 years old	6	85.8
<b>No of people you had sexual intercourse (n=7)</b>		
1 people	5	71.4
2 people	2	28.6
<b>Use condom (n=7)</b>		
Yes	7	100

**Physical Activity of the Respondents (n=110)**

Less than half (31.8%) of the respondents did not involve in physical activity at least 60 minutes per day however only 3.6% of the respondent involved in physical activity at least 60 minutes per day for 5 days. Nearly half (45.4%) of the respondents walk or ride bicycle to or from for 7 days during the past 7 days whereas 14.6% of the respondents did not walk or ride bicycle to or from school during the past 7 days. Most (75.5%) of the respondents did not attend weekly physical education classes during their school year. Only 4.5% of the respondents attend physical education classes for 2 days during their school year. Less than half (36.4%) of the respondents spend leisure time 1 to 2 hours per day for a physical activity.

**Table 3 :Dietary Behaviours (Height, Weight and Hunger) of the Respondents**

Variables	Number	Percent
<b>Know about height</b>		
Yes	92	83.6
No	18	16.4
<b>Know about weight</b>		
Yes	110	100.0
No	-	-
<b>Usually get hungry during past 30 days</b>		
Never	75	68.2
Rarely	22	20.0
Sometimes	9	8.2
Most of the time	2	1.8
Always	2	1.8

Table 3 represents that most (83.6%) of the respondents know about their height whereas Cent percent of the respondents know about their weight. Majority (68.2%) of the respondents never went hungry whereas 1.8% of the respondents usually went hungry most of the time and always during past 30 days.

**Table 4: Dietary Behaviours of the Respondents (Fruits, Vegetables intake and Fast food)**

Variables	Number	Percent
<b>Fruits intake during past 7 days</b>		
Didn't eat fruit during past 7 days	8	7.3
1-3 times during past 7 days	52	47.3
4-6 times during past 7 days	16	14.5
1 time per day	29	26.4
2 times per day	5	4.5
<b>Vegetables intake during past 7 days</b>		
Didn't eat vegetables during past 7 days	7	6.4
1 to 3 times during past 7 days	44	40.4
4 to 6 times during past 7 days	17	15.0
1 time per day	13	11.8
2 times per day	13	11.8
3 times per day	8	7.3
4 or more times per day	8	7.3
<b>Fast food during past 7 days</b>		
0 days	16	14.4
1 day	23	20.9
2 days	23	20.9
3 days	18	16.4
4 days	11	10.0
5 days	4	3.6
6 days	5	4.5
7 days	10	9.3

Table 4 shows that nearly half (47.3%) of the respondents ate fruits 1-3 times during past 7 days. Only 7.3% of the respondents did not eat fruits during past 7 days. Nearly half (40.4%) of the respondents ate vegetables 1 to 3 times during past 7 days. Only 6.4% of the respondents did not eat vegetables during past 7 days. Only 20.9% of the respondents ate food from fast food restaurants 1 and 2 days. Likewise, only 3.6% of the respondents ate food 5 days from fast food restaurants during past 7 days.

**DISCUSSION**

More than half (54.5%) of the respondents were seriously injured. The most common type of serious injury was something else caused injury 40 % which is contradictory to study done in Srilanka among adolescent students where 35.8% of the respondents reported being seriously injured. The most common type of injury was cut or stab wounds 5.5%, followed by broken bones/dislocated joints 5.3%<sup>1</sup>.

In the present study, 6.4% of the respondents had sexual intercourse and among them Cent percent of the respondents used condom during their sexual intercourse which is contradictory to study done in Pokhara where 66.4% of the respondents had sexual intercourse and among them 21.4% reported not using condom during sexual intercourse<sup>6</sup>.

The current study showed that only 20% of the respondents

had drink alcohol for the first time before the age of 14 years among them nearly half (41.4%) of the respondents were current alcohol users which is in contrast to the study done in Kathmandu where 32.6% of the respondents first drank alcohol before the age of 14 years among them 18.4% were current alcohol user (Shah et al., 2021). The present study has sample size of  $n = 110$  but the study conducted in Kathmandu included 250 respondents<sup>7</sup>.

In the present study less than one percent (0.9%) of the respondents have used drug before age of 14 years which is similar to the study conducted in Nepal where 4.1% of the respondents used drugs before age of 14 years<sup>5</sup>.

In this study half (50%) of the respondents smoked cigarettes, 10.9% of the respondents had tried smoking cigarette before the age of 14 years which is contrast to the study conducted in Kathmandu where 6.4% of the respondents smoked cigarettes, 25% first smoked before age of 14 years<sup>7</sup>.

In this current study less than half (31.8%) of the respondents weren't involve in physical activity which is contradictory to the study conducted in Brazil where 43.1% of the respondents were considered physically inactive<sup>8</sup>.

Most (79.1%) of the respondents preferred fast food during the past 30 days in present study which is in contrast to the study conducted in Enugu where 37.6% of the respondents preferred fast food<sup>9</sup>.

## CONCLUSION

Based on the finding of the study more than half of the adolescents student engage in unintentional injury. Few of them involve in sexual behaviours. Nearly half of them are current alcohol users. Half of them are current cigarette smokers. Less than one percent of them use drugs and tobacco. Very few of the adolescents student aren't involve in physical activity. Less than ten percent of them don't eat fruits and vegetables.

## RECOMMENDATION

Schools can introduce educational sessions on importance of fruits and vegetables consumption. teachers and parental education can be provided for the promotion of healthy foods to maintain healthy lifestyle for adolescent.

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## AUTHOR CONTRIBUTIONS

BB took the overall responsibility for the study, including conceptualization, methodology development, analysis, and finalization of the manuscript. PK and RS contributed to methodology design and tool preparation, while SK led the preparation of the theoretical framework, methodology, data collection and analysis, and report preparation.

## COMPETING INTERESTS

All the authors declare no competing interests