

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Nepal is a developing country, and still the awareness of the sanitation and hygiene is lacking in the community and personal hygiene. According the census 2011, total 3.61 million are the students studying the higher education of the total population of 26.49 million. This indicates the increase in the number of people who are educated and aware about the sanitation and hygiene. The diseases are more likely to affect the people who do not have the knowledge of the health education and do not follow the proper sanitation and hygiene measures. So, basis of sanitation and being healthy comes from the knowledge and education only, which ultimately influences the individual, family and community.

According to WHO, 2019, "Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and feces. The word 'sanitation' also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal." More broadly sanitation also included the safe management of solid waste and animal waste. Inadequate sanitation and hygiene practice is a major cause of infectious diseases such as cholera, typhoid and dysentery world-wide. It also contributes to stunting and impaired cognitive function and impacts on well-being through school attendance, anxiety and safety with lifelong consequences, especially for women and girls. Improving sanitation in households, health facilities and schools underpins progress on a wide range of health and economic development issues including universal health coverage and combatting antimicrobial resistance.

Hygiene is a set of practices performed to preserve health. According to the World Health Organization (WHO), "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases." Personal hygiene refers to maintaining the body's cleanliness.

Sanitation and hygiene has a great role to keep the community and people in healthy condition. Only the healthy people can work and study well. If there is not a proper sanitation, we are infected with different communicable diseases. Sanitation refers to

public health conditions related to clean drinking water and adequate treatment and disposal of human excreta and sewage. Preventing human contact with feces is part of sanitation, as is hand washing with soap. Hygienic sanitation facilities are crucial for public health. Since 1990, across the globe, the number of people gaining access to improved sanitation and hygiene has risen from 54% to 68% but some 2.3 billion people still do not have toilets or improved latrines. In 2010, the UN General Assembly recognized access to safe and clean drinking water and sanitation as a human right, and called for international efforts to help countries to provide safe, clean, accessible and affordable drinking water and sanitation. WHO reports some 842 000 people in low- and middle-income countries die as a result of inadequate water, sanitation, and hygiene each year, representing 58% of total diarrheal deaths. Poor sanitation is believed to be the main cause in some 280 000 of these deaths.

Diarrhoea remains a major killer but is largely preventable. Better water, sanitation, and hygiene could prevent the deaths of several thousand each year. Various forms of waterborne diarrheal disease probably are the most prominent examples, and affect mainly children in developing countries; according to the World Health Organization, such diseases account for an estimated 4.1% of the total global burden of disease, and cause about 1.8 million human deaths annually. Open defecation perpetuates a vicious cycle of disease and poverty. According to WHO, In 2015, 39% of the global population (2.9 billion people) used a safely managed sanitation service – defined as use of a toilet or improved latrine, not shared with other households, with a system in place to ensure that excreta are treated or disposed of safely.

Less than one third of population that is 27% of the global population (1.9 billion people) used private sanitation a facility connected to sewers from which wastewater was treated. Around the world, 2.3 billion people still do not have basic sanitation facilities such as toilets or latrines. Many people still defecate in the open, for example in street gutters, behind bushes or into open bodies of water. Poor sanitation is linked to transmission of communicable diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio. Inadequate sanitation is estimated to cause 280 000 diarrhoeal deaths annually and is a major factor in several neglected tropical diseases, including intestinal worms, and trachoma. Poor sanitation also contributes to malnutrition.

The personal sanitation includes the proper practice of hand wash, having bath every day, washing of cloths regularly, cutting nails at regular interval, periodical combing and washing of hair which contributes the major factor for the student's personal hygiene. If those, practices lack personally, it may bring the diseases to the student who study in the college level. The overall performance of the student depends upon the personal health status. Therefore, these parameters have been considered in this study.

1.2 Statement of the Problem

Kathmandu, despite being the capital of Nepal, faces the prominent problem of sanitation hygiene practice in the institutes and environment. The insufficiency of water also contributes to the poor sanitation state. Poor sanitation state affects the personal, family and environmental growth. The personal sanitation and hygiene, and wellbeing is directly to the healthy state of the individuals. Many of the institutes face the sanitation problem especially caused by the latrine and cleanliness of the building and surroundings. Students have to be in the good health and hygienic condition for proper learning. A proper system and sanitation helps to meet the academic aim of the students. The poor condition of the institute is mostly attributed by the weak management system, though many institutes are not below the average level of sanitation. Also sanitation and hygiene includes the waste management and treatment.

Some colleges have less facility for safe and clean drinking water or no or less facility for latrine, some colleges have common toilet for both boys and girls, that directly affects the learning mentality of the students. Moreover, the institutional environment becomes filthy and dirty. This directly affects the learning environment. Therefore, in this regard, this thesis was conducted at Pashupati Multiple Campus at Chabahil in Kathmandu, in state 3 of Nepal 3, to find out the present condition of the sanitation for the first year students of bachelor level.

In this context this proposed study had tried to answer the following research questions:

1. What was the practice of the sanitation and hygiene in the college students?
2. Which were the measures for sanitation followed by students?
3. Sanitation and hygiene attitude adopted by family and college.

These were the crucial indications to resolve the status of the sanitation by the college level students who were studying at bachelor level first year. As the more number of students participated, in the study, the findings were facilitated by the interpretation of the result observed.

1.3 Objectives of the Study

The general objective of this proposed study was to assess the condition and practice of the sanitation and hygiene followed by the students. The specific objectives of proposed study were as follows:

- i. To analyze the sanitation and hygiene practice of the students.
- ii. To assess the condition of the sanitation of the family of students.
- iii. To assess the sanitation hygiene status of the institute.

1.4 Importance of the Study

Based on the objectives of the proposed study, the study was considered as a references guide as it would describe the sanitation and hygiene status and practice implemented by the students who were studying the bachelor level, and pointed out areas for improvement. This study helped to promote educational institutes that address to build the proper environment for sanitation. The findings of the study or significance only in so far as they would provide and promote colleges with the ideas on what types sanitation practice is to implement in the colleges. The outcomes of the study will be significant to assess the sanitary practice of the individual students which helps to improve personal sanitation. Since many of the communicable and water borne diseases are the cause of poor sanitation such as cholera, dysentery. Infection commonly results during bathing, washing, drinking, in the preparation of food, or the consumption of food thus infected. The major focus of this study will be in a public college which more than 3500 students in bachelor level. Thus, this study would serve as a reference point for personal, family and educational institutes to transform healthier and tidier environment for the individual students, family and learning environment in the college.

1.5 Delimitations of the Study

Each and every study has its own limitation. This study too is no exception. The main limitations of this proposed study were as follows:

- i. This proposed study was mainly focused on sanitation and hygiene practice of the college level students.
- ii. This proposed study assessed sanitation and hygiene practice of bachelor first year students at Pashupati Multiple College only.
- iii. The findings of this study might not be generalized for all communities of the country.
- iv. This study was related with the bachelor level students and their sanitation and hygiene practice.
- v. The thesis was based on the descriptive survey design.
- vi. The samples of the study was selected on the basis of the sampling model of the less error method.
- vii. It was a random sampling for the students studying first year of B. Ed, B. A., BSW and BBS.
- viii. Due to time and budget constraints, this proposed study had a limited scope.
- ix. The sample size of the study was 165 of the total 1161 first year bachelor students.

1.6 Term Related Definition

1.6.1 Sanitation-Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and feces. The word 'sanitation' also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal.

1.6.2 Hygiene- conditions and practices that help to maintain health and prevent the spread of diseases.

1.6.3 Study-A detailed investigation and analysis of a subject or situation.

1.6.4 Questionnaire-a set of printed or written questions with a choice of answers, devised for the purposes of a survey or statistical study

1.6.5 Dysentery-An infectious disease characterized by inflammation of the intestine, abdominal pain, and diarrhea with stools that often contain blood and mucus.

1.6.6 Water borne disease-An illness due to infection with pathogens contaminating the water supply.

1.6.7 Health- A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

1.6.8 WaSH- Water, Sanitation and Hygiene

1.6.9 Cholera-Cholera is a diarrhoeal disease caused by toxigenic serogroups of the bacterium *Vibrio cholerae*, which can cause rapid dehydration and death.

CHAPTER II

REVIEW OF LITERATURE

The systematic effort for sanitation promotion in Nepal dates back to the 1980s along with the United Nations (UN) declaration of the International Decade of Drinking Water Supply and Sanitation. Since then, promotion of sanitation has been taking place as an integral component of water supply projects. However, major effort on sanitation is found to have started from the early 90s. In the recent years, sanitation has been recognized as the basis of health, dignity and development.

In Nepalese WaSH (Water, Sanitation and Hygiene) sector the involvement of users in the process had significantly increased the coverage upto 81.95% in sanitation and similarly upto 86.45% in water supply in 2015. The sector has become more inclusive with Water Users Committees representing more and more women and marginalized groups. The Constitution of Nepal has envisaged complete decentralization of all aspects of planning, implementation, operating and maintaining WaSH projects to the Federal, Provincial and Local tiers of Government. UN has declared WaSH as a human right in 2010. Therefore the sanitation and hygiene condition of the students' level at bachelor level was analyzed.

The primary objective of the present proposed study was to assess the present condition of sanitation of the first year bachelor college students. For this purpose, a review of related literatures in this concerned area is must, which would help to get clear ideas, opinions and other concepts. This chapter emphasized about the literatures which are concerned in this connections. Therefore, in this chapter conceptual framework given by different authors and intellectuals of this area, books, journals, research work and previous thesis related to sanitation and practices at colleges are reviewed. Moreover the campus studying students' sanitation is reviewed and attempt has been made to present them properly.

2.1 Review of the Theoretical Literature

Globally billion people live without access to a basic sanitation service, millions of these people practice open defecation. Despite significant gains billions, people gained access to improve toilets or latrines since 1990, sanitation was one of the most off-

track Millennium Development Goals (MDGs) globally. Today, only one third of the world's population has access to basic sanitation, and only 39% of people have access to safely managed sanitation (which includes containment, through safe collection and conveyance, to treatment and end use/disposal). Further, half of the people in South Asia lack access to basic sanitation services (i.e., an improved toilet/latrine).

The systematic effort for sanitation promotion in Nepal dates back to the 1980s along with the United Nations (UN) declaration of the International Decade of Drinking Water Supply and Sanitation. Since then, promotion of sanitation has been taking place as an integral component of water supply projects. However, major effort on sanitation is found to have started from the early 90s. According to government of Nepal, sanitation and hygiene master plan, 2011, despite the gradual achievements in sanitation, still 57% of the country's population lacks access to a toilet. Every day, 16 million Nepalese (around 57% of the population) practice open defecation because they have no toilets. The poor and disadvantaged communities are the most affected, with children and women fairsing worst. Other institutions and public and private college and organization also have worked on the status of sanitation.

Sanitation includes personal, family and environment which include the college, institutes and other offices. In case of personal sanitation which covers the proper body wash and bathing, hand wash, cutting hair and nail, and washing clothes. These include proper hand wash when hands are visibly dirty or soiled, after using the restroom or anytime in contact with bodily fluids (sneezing, changing diapers), before and after touching a surgical incision, before and after eating and food preparation. Cleaning of teeth with fluoride for at least 2 minutes, twice a day after having meal. Skin, being the largest organ in the body needs the appropriate care since it is exposed to the dust and moist. Care of nails, feet and teeth; spitting, coughing, sneezing, and personal appearance and inculcation of clean habit. Health largely depends upon the family's social and physical environment and behavior and lifestyle. For these, the cleanliness and sanitation plays important role. If family and the environment is not healthy, the members are affected in different aspects in work efficiency and mental ability. Hygiene is a set of practices performed to preserve health. According to the World Health Organization (WHO), "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases." Personal hygiene refers to maintaining the body's cleanliness.

2.2 Review of the Empirical Literature

Globally more than two billion people live without access to improved sanitation. Worldwide, several thousands of all deaths and disability are caused by poor sanitation, poor hygiene and unsafe water. In case of Nepal, nearly two-thirds of the total population go for open-air defecation and only one-third having access to a latrine. (Rajiv and et. el)

In addition to the challenges of providing many millions of rural households with adequate sanitation, the world continues to urbanize, and cities and small towns will increasingly bear the burden of poor sanitation, with an estimated 57% of urban dwellers lacking access to toilets that provide a full sanitation service, 16% of urban dwellers lacking access to basic sanitation services, and almost 100 million urban residents practicing open defecation. (World Bank Sanitation Report 2019).

The lack of access to sanitation in Nepal is striking. The factors which contribute for the lacking of latrine is lower socio economic status, lack of awareness, and traditional beliefs. Other factors can be the ignorance, as Nepal is mostly rural and villages where they do not tend to adapt the new practices, unavailability of the materials to build the latrine, soap, etc. in case of the urban cities, a general negligence, of lack of time since people are busy at their work. A total of 75% of the population is without access to sanitation, one of the highest proportions in Asia. However, the urban sanitation coverage is 75% and the rural sanitation coverage is less than one third. Every day, 16 million Nepalese (around 57% of the population) practice open defecation because they have no toilets. (Rajiv 2011)

In spite of those problems, Nepal has made a remarkable progress in water supply and sanitation since last decade. Especially after the enforcement of the Sanitation and Hygiene Master Plan in 2011, despite various socio-economic and cultural barriers, rate of increase in sanitation coverage has been commendable. Notwithstanding the post-earthquake bizarre situation in Nepal, still we are striving deterministically towards achieving ODF and providing basic water facility to all Nepali citizens.

Baidya Marina et el study revealed that knowledge regarding water borne disease was high among Urban school students 86.5% but knowledge regarding transmission route seemed inadequate in both urban and rural students. The practice on hand washing was

found higher. Lack of proper hand washing or personal sanitation results in the deaths of the people resulting the consequences of water borne diseases like cholera, dysentery, which includes the transmission of infectious bacteria, fungi, viruses etc. The infectious microorganisms can be everywhere including air. So if those conditions are bypassed, there is a chance of infection and disease that could lead to the illness and sometimes death.

The above study focused on only in the global scenario, and in case of Nepal, only these school students and children. Study on college students is lacking. Therefore, there are some gaps to be identified. Hence, the proposed study focused on the sanitation condition of students who were studying higher education first year bachelor level at different facilities.

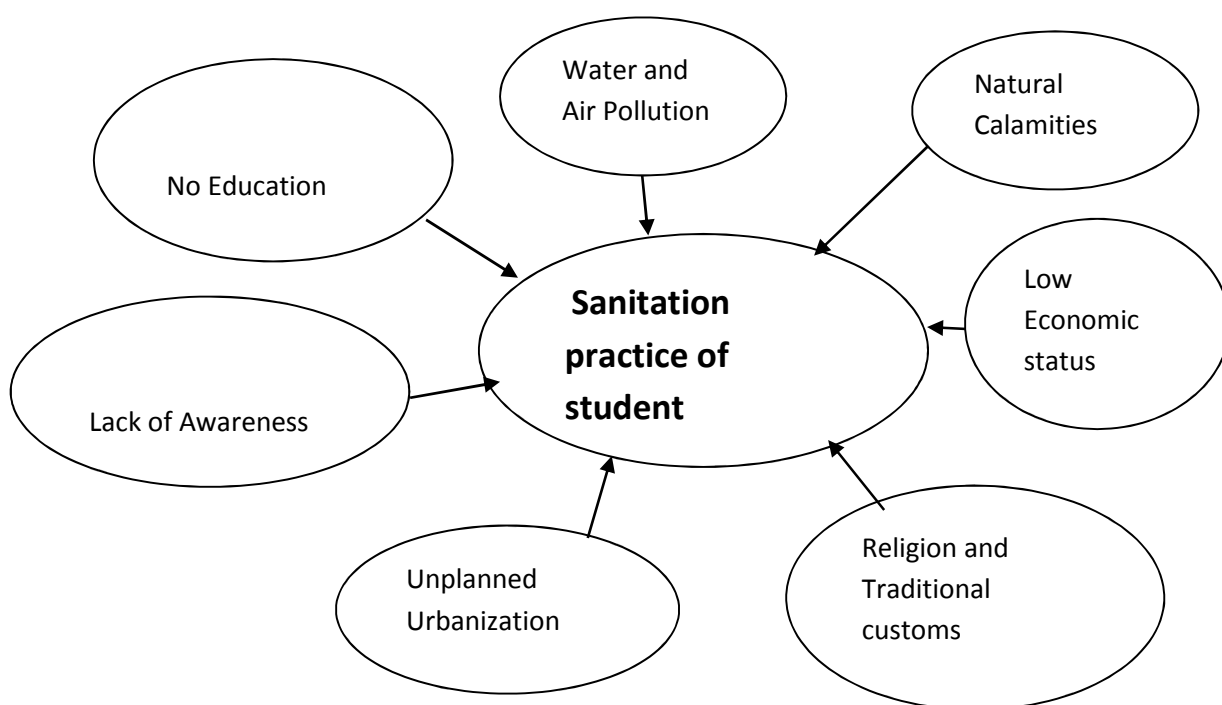
2.3 Implication of the Review for the Study

The goal of the study of sanitation and hygiene practice in the students at Pashupati Multiple College helped to provide the followings-

- It helped to assess the status of the sanitation practice of the students at Pashupati Multiple College, at Chabahil in Kathmandu.
- The study provided the status of the sanitation of the students.
- It also helped assess the sanitation condition of the college.
- By studying this study, the pattern of questionnaire and data collection method, further study was possible.
- Present study was defined by the conclusions drawn from the result of the research and researchers' conclusion.
- This study helped to find the other institutes and researchers to draw the conclusion about the sanitation condition of their students and to improve the status of the institute.

2.4 Conceptual Framework

This study was about the sanitation and hygiene practice in students of the bachelor level first year students in study area. This is why, I Developed a conceptual framework which illustrated the major factors which affect the sanitation condition. This conceptual framework presented the major factors that of educational public institutes which supported to help build good sanitation environment and practice.



Those above factors-from the air and water pollution, lack of education and awareness, natural calamities, religion and tradition customs, low economic status, unplanned and urbanization-all contribute the low sanitation status. In addition to that, the lack of water that was the weakness in management system can highly attribute to the low level of sanitation practice. The other most important factor was the attitude and culture hence, these factors had been explained, analyzed and concluded.

CHAPTER III

RESEARCH METHODOLOGY

Research Methodology is a systematic way to solve the research problem. In other words, research methodology deals with the methodology adopted in the study. It contained the research design, nature and source of data, method of data collection, sample size, etc. It would be appropriate to mention that research projects not susceptible to be studied would determine the particular steps to be taken in order too.

3.1 Research Design

For the study, descriptive research design was used. The study focused on sanitation and hygiene practice in the college level students in the college. The descriptive research design conceived with the attitudes and the expression of the participatory student numbers. The descriptive research design concerned with the description of the facts with respect to the sanitation impact of the involved students' health, education, awareness and its use were indicated.

3.2 Study Area

Pashupati Multiple Campus, Chabahil, Kathmandu was selected for this proposed study. The first reason for selecting this College was in the city area in Kathmandu district. Besides that, there was sufficient number of students. Transport facility of public buses was also easily available. On the other hand, the campus had the population from the different districts and socio-economic states and other as well. Therefore, there was the comparative study of sanitation practice of the students across the country.

3.3 Population and Sampling

The sample of the proposed study was 165 of total students of the college i.e. 1161. Therefore the main source of data was primary. It was a random sampling of the students of a class regardless of the ethnicity or socio-economic status. It was because,

it was a judgment sampling as the researcher could easily decide who and where to participate in the interviews. Similarly, the researcher had acquainted with the study area.

The total number of the sample was tabulated as following according to the faculty wise students of the first year students of the bachelor level.

Table No. 1: Total number of respondents

Faculty (First Year 2075)	No. of Participant	Total Number of Students Faculty wise
B. Ed.	27	182
B. A.	70	493
BBS	58	408
BSW	10	78
Total	165	1161

3.4 Data Collection Tools and Techniques

Both qualitative and quantitative data were collected during the fieldwork. Similarly, the primary data had been collected. The sources of primary data were the questionnaire and face to face interview. Secondary data were collected including both published and unpublished literatures i.e. articles, journals of published sanitation and health, public health books from Tribhuvan University Department of Health Education, Health Institutes, Metropolitan office, National, International organization, journals, research, reports, progress report other Masters and Ph. D. thesis related literatures, websites of various national and international government and non-governmental organizations etc. The report of the proposed campus was the main sources of secondary data.

3.5 Data Collection Procedure

Questionnaire was the main tool of this study. It was used to collect the information on the studying place, where the students study at college time. So the questionnaire was fulfilled through direct contact with the participants at different classes of different faculties on the campus. The studying environment, college area was observed and the direct questionnaire was provided to the students. The answers were filled by the students in presence of the observer.

3.6 Data Analysis and Interpretation Techniques

As both qualitative and quantitative data were collected during the fieldwork and the data was broadly categorized according to the research objectives and were presented in qualitative as well as in the quantitative form. Thereafter, the data was analyzed and interpreted with the help of different statistical tools like Excel sheet etc. were used for data analysis. To justify the statement, the researcher used both Qualitative and quantities methods, both primary and secondary data were tabulated and analyzed descriptively.

CHAPTER IV

ANALYSIS AND INTERPRETATION

The chapter deals with the situation of the sanitation status of the students studying at Pashupati Multiple College at Chabahil in Kathmandu including the students of bachelor first year students B. Ed, B.A., BBS and BSW. Sanitation and hygiene practice was assessed in statues of personal, family and college.

4.1 Status and distribution of the respondents

All the four faculty wise students' distribution is presented below.

4.1.1 Total number of students

The total number of student distribution is given as below.

Table No.2: Distribution of students

Faculty (First Year 2075)	B. Ed.	B. A.	BBS	BSW	Total
No. of Participant	27	70	58	10	165
Percentage	16%	43%	35%	6%	100%

The study involved the first year students of different four different faculty total of 1161. Among them 16% from B. Ed, 43% from BA, 35% from BBS and 6% from BSW were chosen.

4.1.2 Sex wise distribution of the students

Sew wise distribution of the students among the different faculties shows 71% (117) were the female population and 29% that is 48 respondents were male. Most of the respondents were from B.A. first year of 43% and the least were from BSW that is only 6%.

Table No. 3: Distribution of the male students:

Faculty (First Year 2075)	B Ed.	BA	BBS	BSW	Total
Male	7	19	18	4	48
Percentage	15%	40%	37%	8%	100%

Most of the male students were 40% from BA, 37% from BBS, 15% from B. Ed and 8% from BSW.

Table No. 4: Distribution of Female students

Faculty (First Year 2075)	B Ed.	BA	BBS	BSW	Total
Female	20	51	40	6	117
Percentage	17%	44%	34%	5%	100%

The sex wise distribution shows the female students 17% from B. Ed, 44% from BA, 34% from BBS and 5% from BSW.

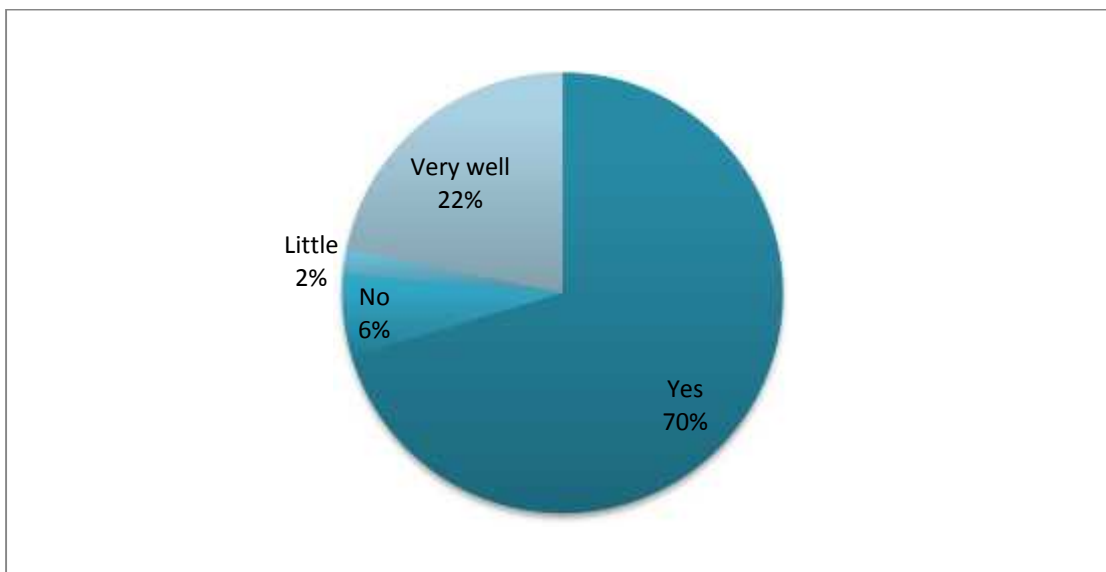
Sanitation assessment was done about the personal hygiene, family hygiene and college hygiene.

4.2 Interpretation of the Collected Data

4.2.1 About Sanitation Knowledge

The knowledge about sanitation was assessed by the first question how much they knew about the sanitation. The other practices becomes less significant if the they were not aware of the sanitation.

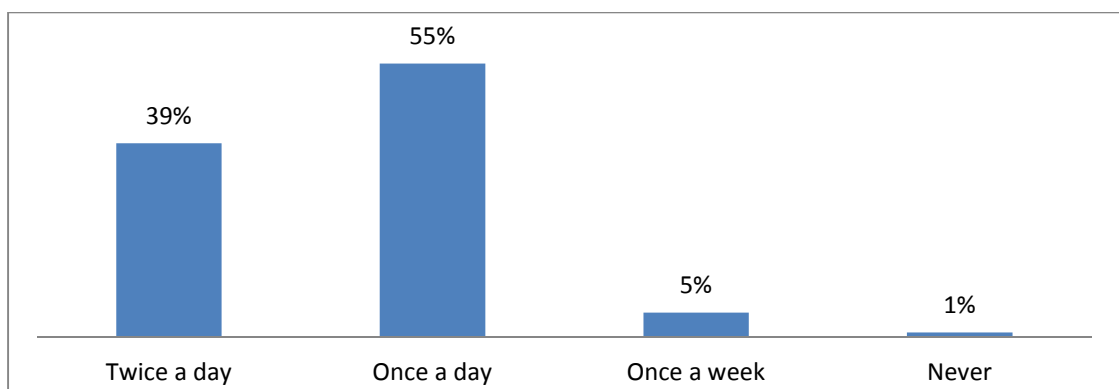
Figure No. 1: Knowledge about sanitation



The assessment was about the knowledge about sanitation most of the response (70%) was they knew about sanitation. Secondly 22% of their response was they knew very well about the sanitation. Of them 6% of the students are not aware of this and very little of 2% of them.

4.2.2. Pattern of Combing Hair

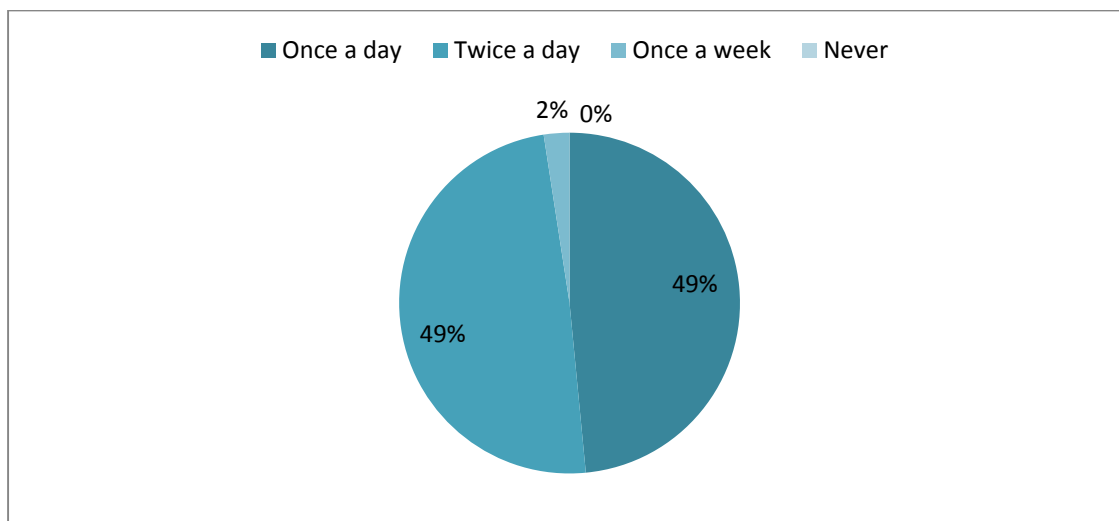
Combing is also an indicator for the sanitation. How many times, the combing of hair was done by all of the respondents was evaluated.

Figure No. 2: Combing Hair Pattern

So, it was found that most of the students 55 % (90) comb once a day and 65(39%), 1% of them that is 2 persons never combed their hair.

4.2.3 Frequency of Brushing Teeth

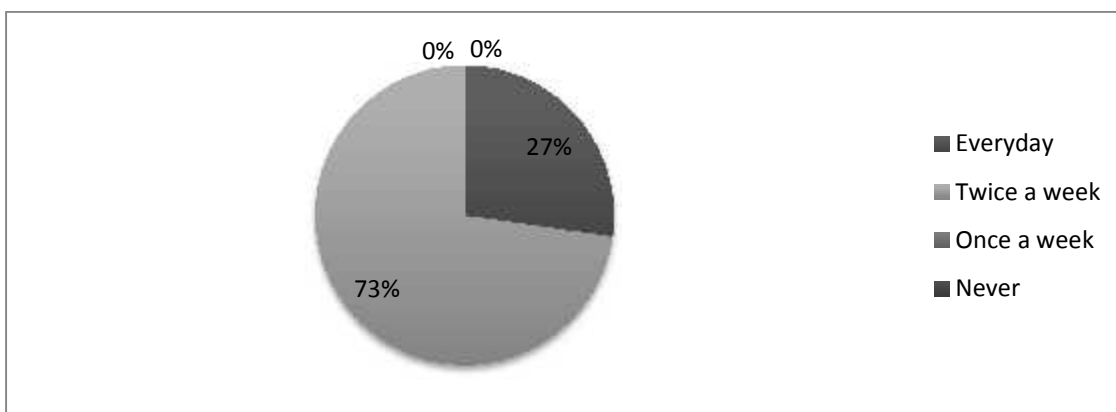
It was found satisfactory that most of the respondents do brush twice a day. Dental hygiene provides the greater role for the individuals' health. Even though it was advised to brush twice a day for brushing teeth the finding were different.

Figure No. 3: Brushing Teeth

It was found that 49 % of the population brushed once a day and another 49% of them had a habit of brushing twice a day. 2% of them had a habit of brushing once a week and there were no students who did not brush.

4.2.4 Washing of Personal Uniform

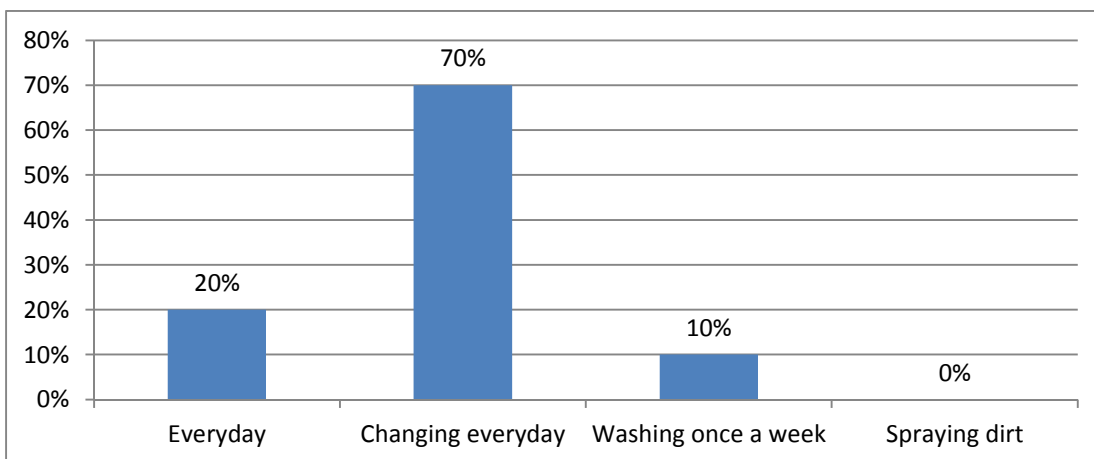
Uniform shows the outer outlook of the individuals' appearance and the same for the students. The confidence develops by the clean wearing.

Figure No. 4: Washing of Personal Uniform

Most of the students 73% responded that they wash the uniform twice a week and 27% wash every day. There were none of them who wash the uniform once a week or never.

4.2.5 Use of Shocks

Shocks play an important role for the health and sanitation. In some cases, shocks causes the infection if they are dirty and filthy.

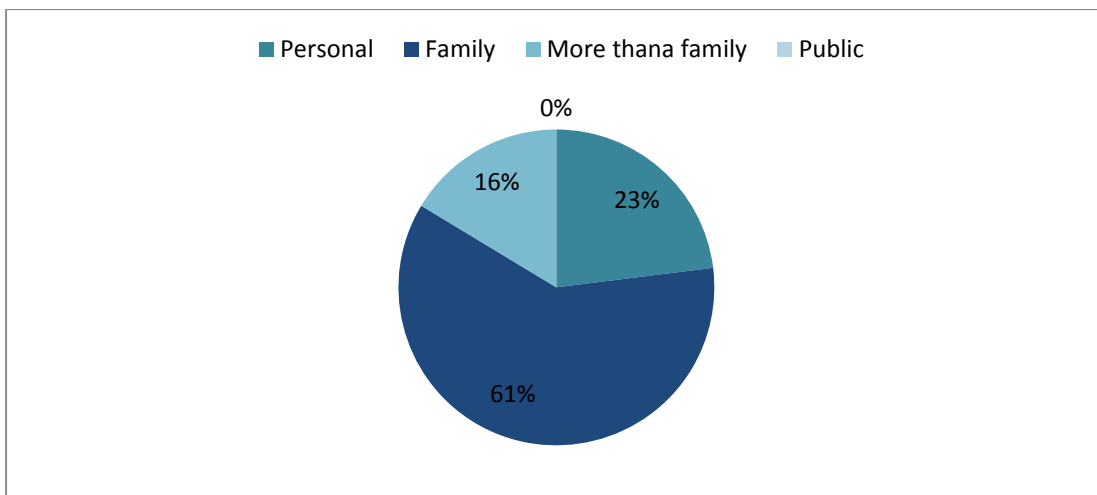
Figure No. 5: Use of Shocks

Most of them (70%) change the shocks every day and 20% (32) wash every day. Few of them (10%) wash the shocks once a week. It was found that nobody sprays the dirt with spray.

4.2.6 Residential Latrine

Students used different types of latrines at their resident. Most of them had family, lesser had personal. Also, they used the latrine which was used by more than a family.

Figure No. 6: Latrine use at Residence

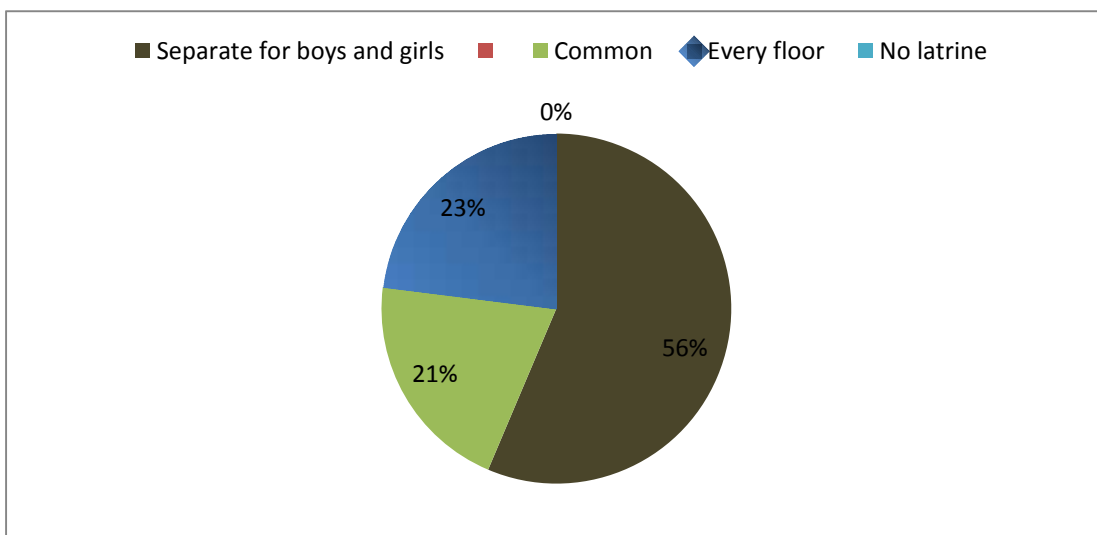


100 respondents (61%) have the family latrine and 23% that is 32 persons have the personnel latrine. Common family use toilet by 16%. It has a good indicator that nobody uses the public toilet at the residence.

4.2.7 Latrine at the college

The college had provided good facility for the students since it had provided the separate for boys and girls. It might be different for different faculties as some had answered for the common latrine set ups.

Figure No. 7: Latrine at college

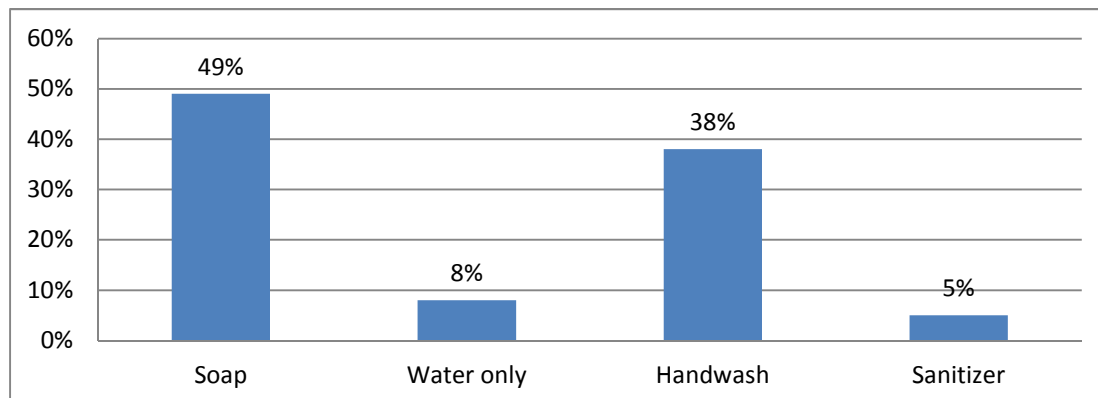


The latrine at the college was separate for boys and girls were 56% mentioned by 93 students and common for 21 %. Every floor of latrine was stated by 23% population.

4.2.8 Washing Hand after Latrine

Soap was found to be the mostly used material washing hand after latrine. Secondly, the hand wash was found to be the material to be used.

Figure No. 8: Washing Hand after Latrine

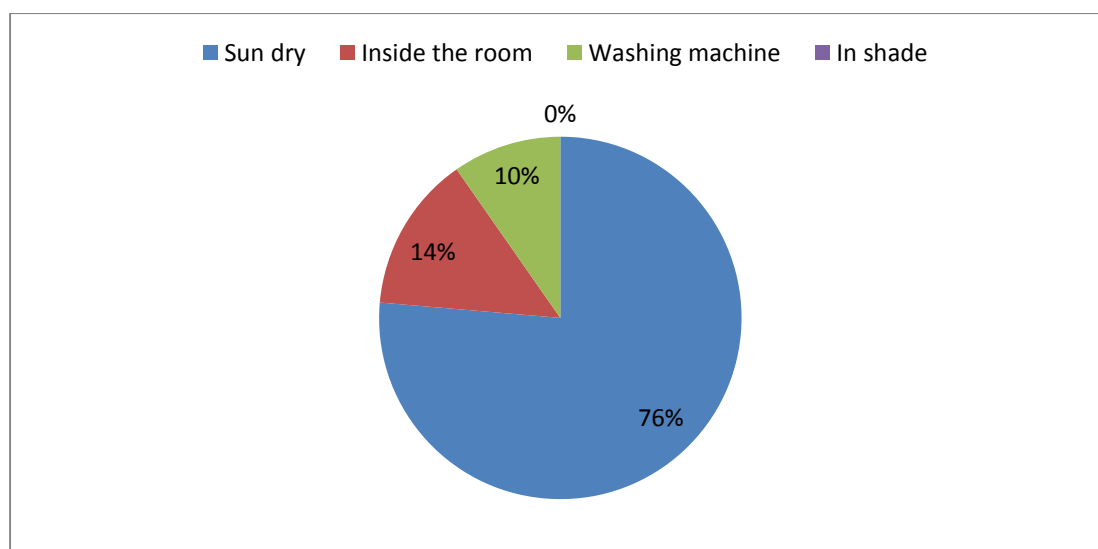


Washing hand with soap was found to be 49% and 38% with hand wash. With water only is 8% and least with sanitizer that is 5%.

4.2.9 Drying Of Cloths

Sun drying of cloths was found to be the major way of drying. In lesser extent, they had a practice of putting cloths inside the room. Fewer had washing machine.

Figure No. 9: Drying of Cloths

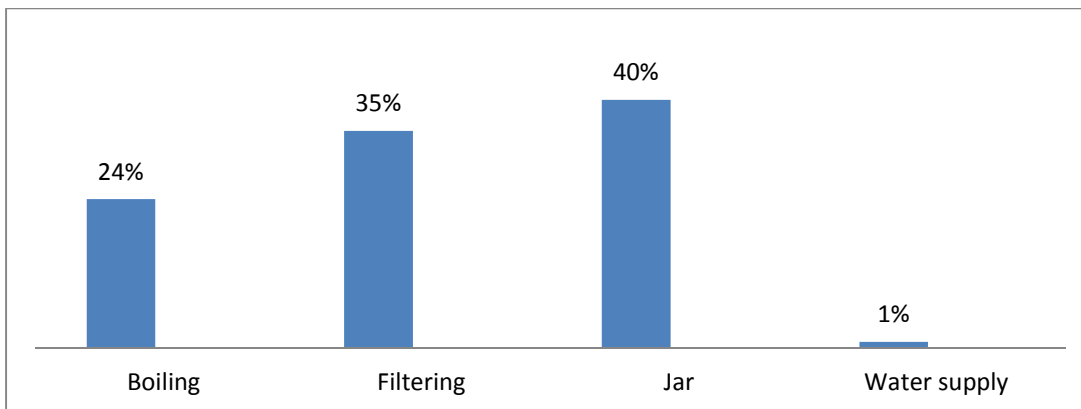


The habitual of drying cloths on the sun was found to be 76% of 126 respondents. None of them had the habit of drying clothes in the shade which indicated the good practice.

4.2.10 Pattern of Drinking Water At Home

Drinking water is a major problem in Kathmandu. It plays a direct and prompt role in case of the hygiene and the use of more water must have been available.

Figure No. 10: Drinking Water at Home

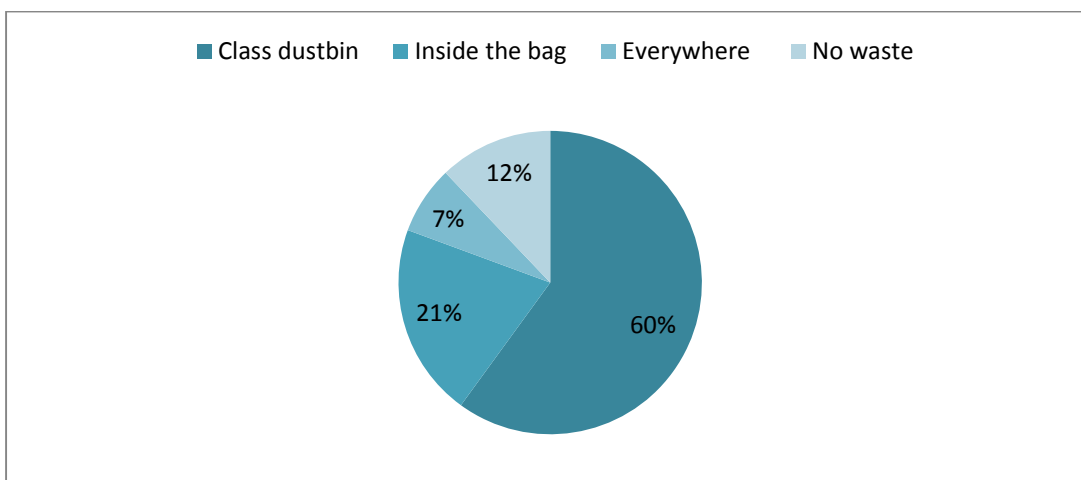


About them 40% (66) used the Jar water. Filtering was seen as the second major way of drinking water accounting 35% of 57 students. Boiling water is used for drinking only by 24% of 57 students. Very few of 1% of 2 respondents using water supply. It has showed the good hygiene practice with them.

4.2.11 Class Room Waste Management

The respondents had to demonstrate the good sanitation practice even for the college by managing the waste at class room. It showed a good since majority of them used dustbin and not throwing elsewhere.

Figure No. 11: Class Room Waste Management

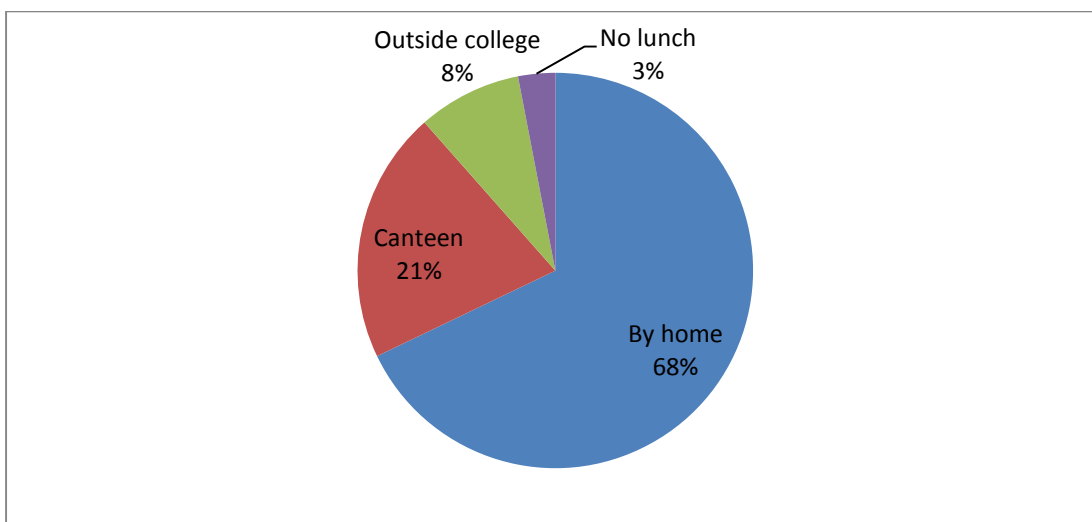


It was observed that 60% (99) of the students have the habit of managing classroom waste at class dustbin and 21% answered that they put the waste inside their bag. Others 12%(20) responded that they did not produce the waste while in the college while 7% of them had the habit of throwing classroom waste everywhere.

4.2.12 Lunch at college

The lunch pattern having at college could produce different kinds of attitude of students. If the canteen was enough good to have different meals of hygiene, so the students would be healthier.

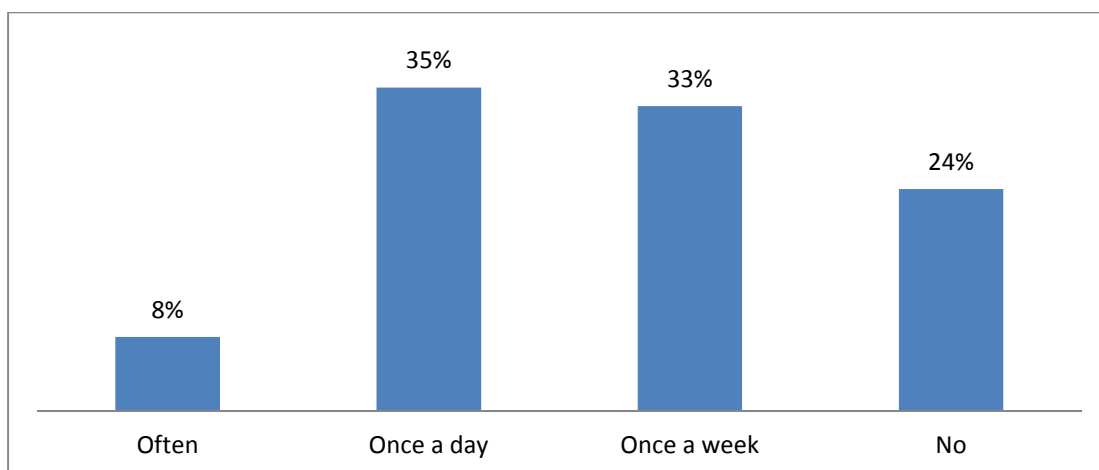
Figure No. 12: Lunch at College



It was also observed that the good sign of having lunch at college which is prepared in the home. In this regard, only 21 % of the students take lunch at college canteen. It has been also seen that least percent of 3 % do not take lunch.

4.2.13 Junk Food Habit

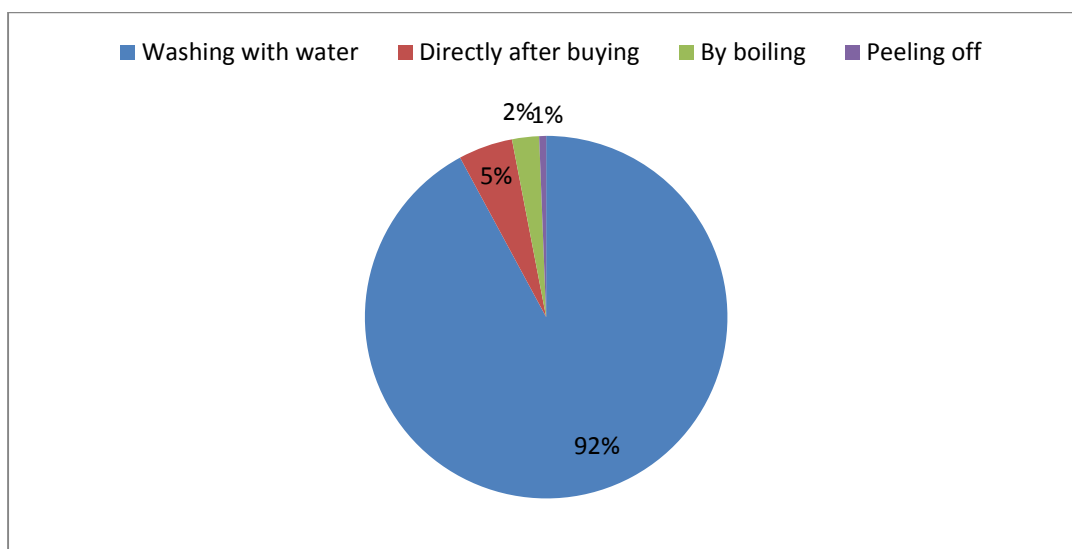
Consumption of junk food produced a moderate result since one third of them having once daily and another one third having once a week. As it is believed that most of the junk food not leading to healthier living style.

Figure No. 13: Junk Food Habit

Junk food consumption was observed almost similar with the students who took once a day and once a week that is 35% and 33%. About a quarter of them had no habit of junk food that is 24% of the population and 8% took often the junk food.

4.2.14 Eating Fruit Pattern

Fruits are eaten in various ways according to the practice of individuals and availability of the sources like water to clean. They showed an outstanding positive result by answering washing with water which is presented by the following pie chart.

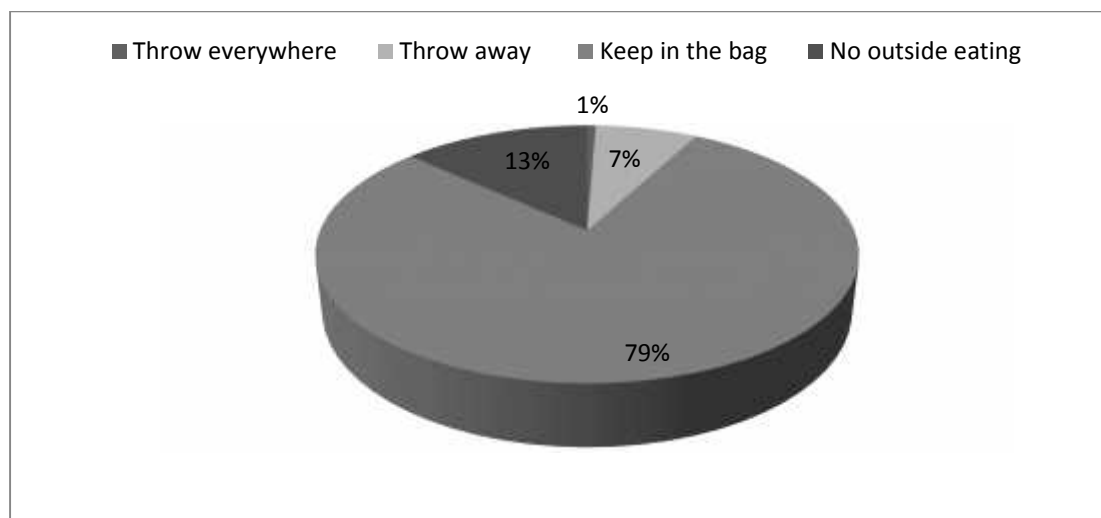
Figure No. 14: Eating Fruit Habit

More than 90% responded that having fruit is after washing, 5% said directly and 2% by boiling and less than 1% indicated that peeling off the fruit. Though peeling off is not much common these days just the 1% population showed that one.

4.2.15 Management of Waste Eating Outside

Hygienic practice also includes the managing of waste produced outside the home or college which can be on the roads, market, parks and gardens.

.Figure No. 15: Waste Management Outside

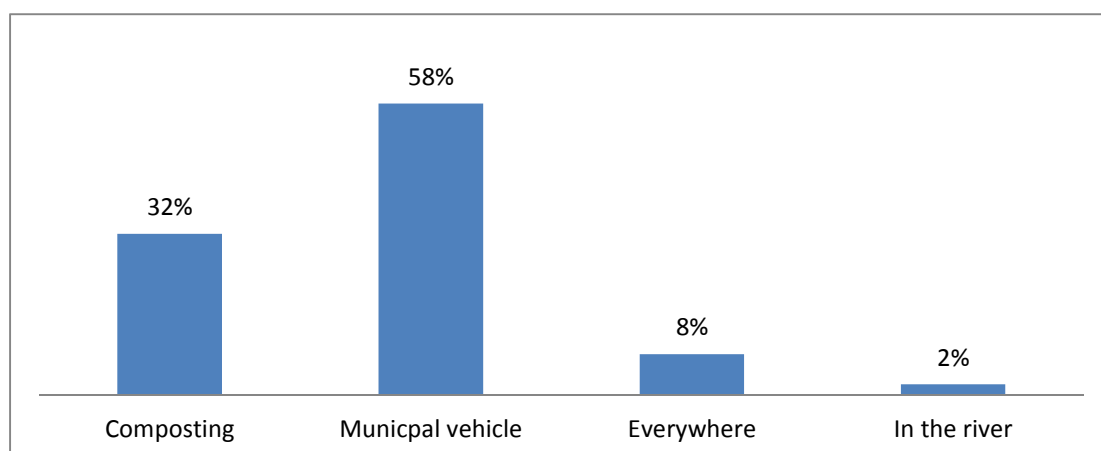


Most of them (130) responded to keeping in the bag, secondarily, not outside eating is 13%, few of them(7%) said throw away and 1 % showed throwing everywhere.

4.2.16 Managing Household Waste

Many kinds of communicable diseases can be spread by the household waste which are not managed. So the knowledge of this is very important. It was satisfactory as most of them(58%) did it by municipal waste.

Figure No. 16: Managing Household Waste

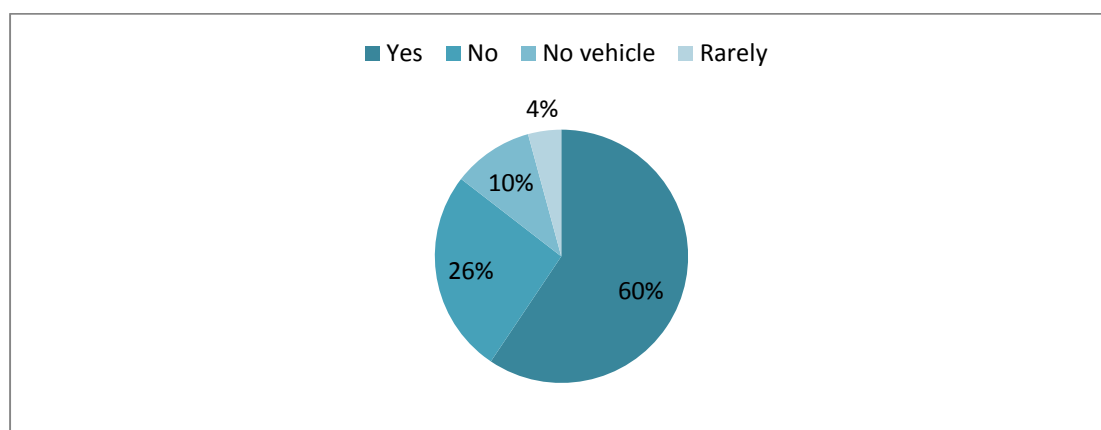


More than half of the population has the management of household waste to deliver on municipal vehicle, and lesser does by composting 14 of them (8%) to every where and 1 % of them in the river.

4.2.17 Managing Waste at Municipal Collection

At some places, the waste is not managed by the municipality. Moreover, at places the municipals do not operate those vehicles. On the other hand, some individuals do not utilize vehicles to manage the waste.

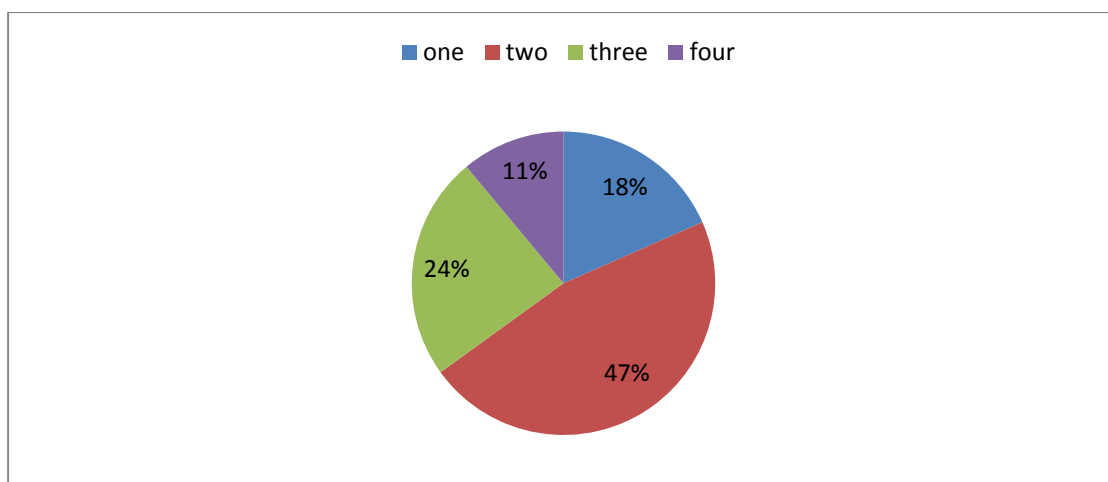
Figure No. 17: Municipal Waste collection



Majority of the students' 60% response was to manage by municipal vehicle. Among them 26% did not manage by the municipal, 10% did not have municipal vehicle and 4% collected rarely by municipal vehicle.

4.2.18 Types of Dustbin

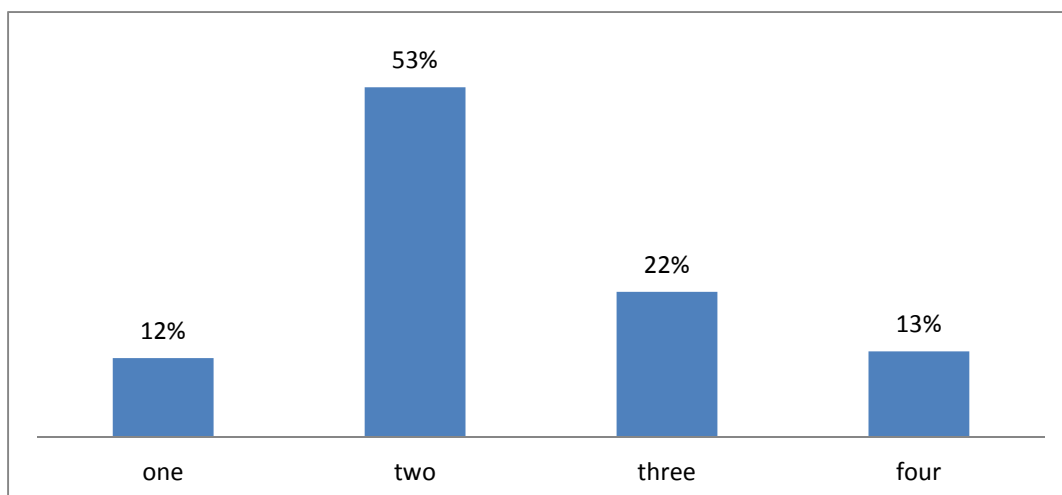
There are 3 major types of dustbin for ordinary use. But majority of them mentioned 2 types and others mentioned in lesser extent by one and three types of dustbins.

Figure No. 18: Types of Dustbin

Most of the respondents' answered was 2 types of dustbin. Only 1 type of dustbin answered by 18%, 2 types of dustbin by 47%, 3 types of dustbin by 24% and 4 types of dustbin by 11%.

4.2.19 Types of Household Waste

According to the household waste, their response was satisfactory by allocating two types of waste. It was seen up to four types by their response.

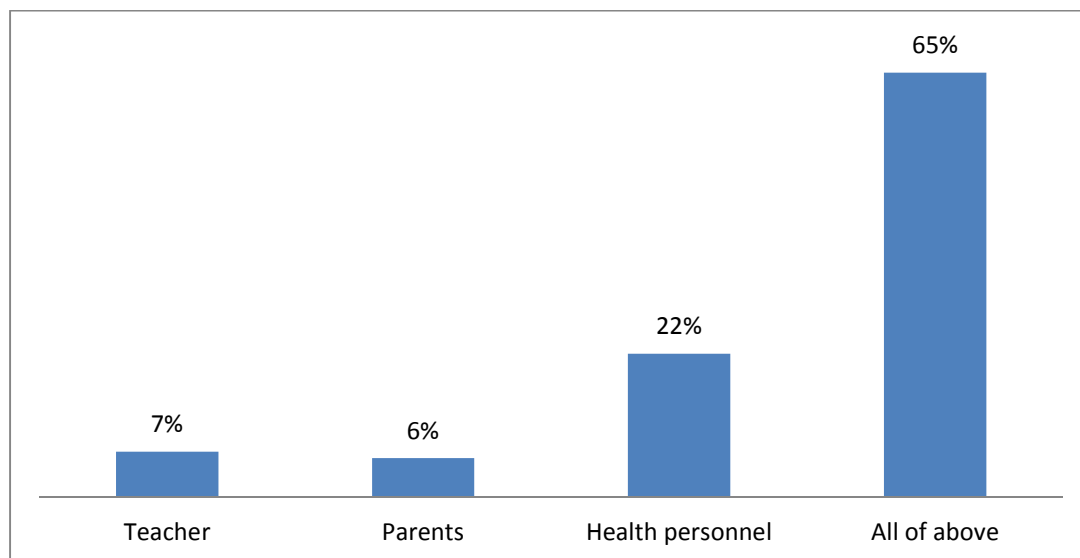
Figure No. 19: Types of Household Waste

Most of the respondents (53%) had the response was household waste is of two types. Lesser in 22% had 3 types of household waste, 13% had 4 types and 12% responded one type of household waste.

4.2.20 Health Education Provider

Health education provider can be any of them like the teacher, parents, health personnel and media. In that case they also mentioned accurately by 65%. That is good if they could understand.

Figure No. 20: Health Education Provider

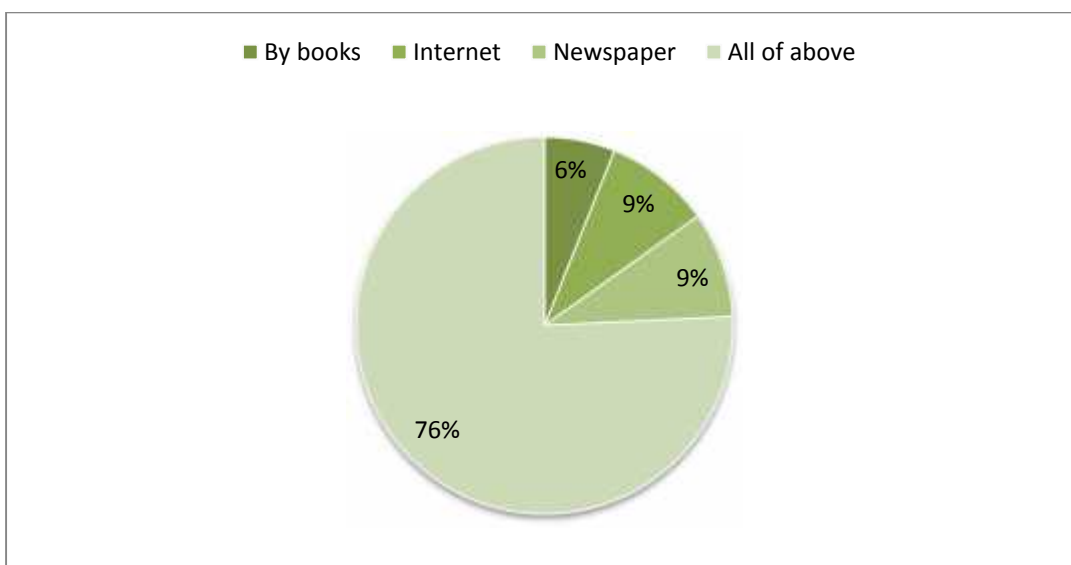


It has been correctly answered by 65% and 35% answered the differently by health education is provided by other personnel like teacher, parents and health workers. Among them answers were by health professional only by 22%, by parents 6% and by teacher 7%.

4.2.21 Source of Sanitation Information

The response was absolutely good since the source of sanitation information was pointed out correctly by most of them. Very few responses were to the single source of information.

Figure No. 21: Source of Sanitation Information

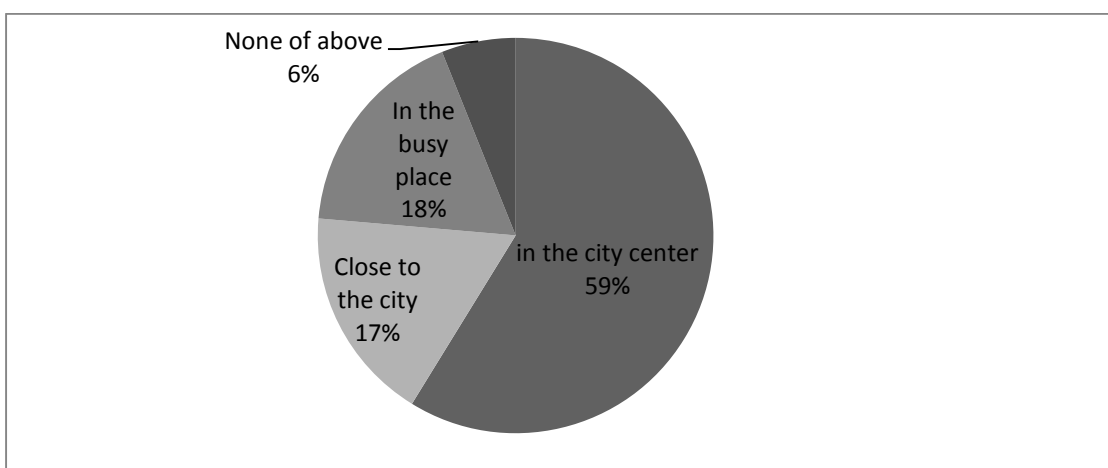


Source of sanitation information was responded correctly by 76% and 6% was by books, 9% by internet and rest of them (9%) mentioned by newspaper.

4.2.22 Proper Location of the College

Location of the college has different impacts for duration of travel, and the surrounding environment which may cause the pollution and dust.

Figure No. 22: Proper Location of the College

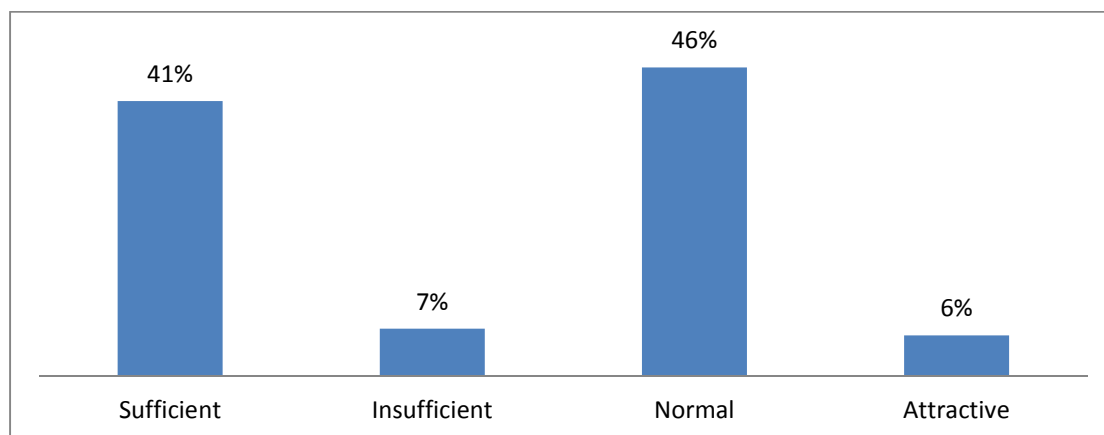


In the city center was the choice of majority of the students for the college by 59%. Lesser of 18% preferred the location at the busy place and 17% chose to be close by the city. Rest of 6% blindly chose the option.

4.2.23 Sufficiency of the Light in the Classroom

The class room light sufficiency also affects the learning ability of the students. It may have the permanent effect of the vision if insufficiency of the light while at reading. Light management has been lower than the normal. It shows the proper improvement over the reading light or natural light entrance.

Figure No. 23: Sufficiency of the Light in the Classroom

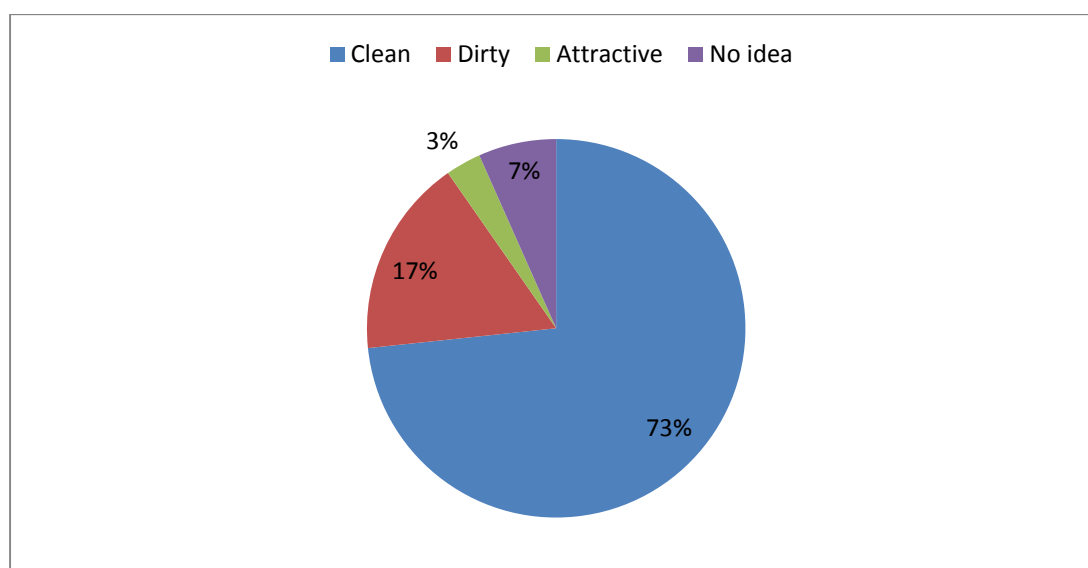


The sufficiency of the light in the class room was found normal by 46% and sufficient was 41%. Insufficiency and attractive light system were both found lesser than 8%.

4.2.24 About College Sanitation

Study environment also affects the learning ability, if the college is not clean they do have repulsive effect with less learning outcomes. So, college must be clean and peace.

Figure No. 24: About College Sanitation

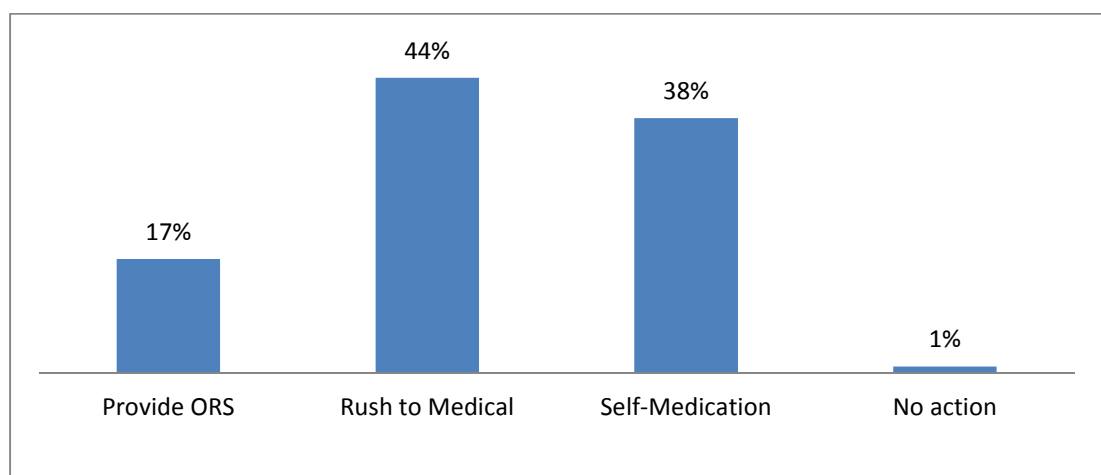


College sanitation about cleanliness of the college was mentioned clean by 73% and secondly 17 % of them mentioned dirty, only 3% of them responded attractive and 7% of them had no idea.

4.2.25 If Someone Gets Diarrhea

Diarrhea is not a major death factor, but it may lead at times to death if not managed properly. Therefore the management of diarrhea is necessary or primary healthcare management.

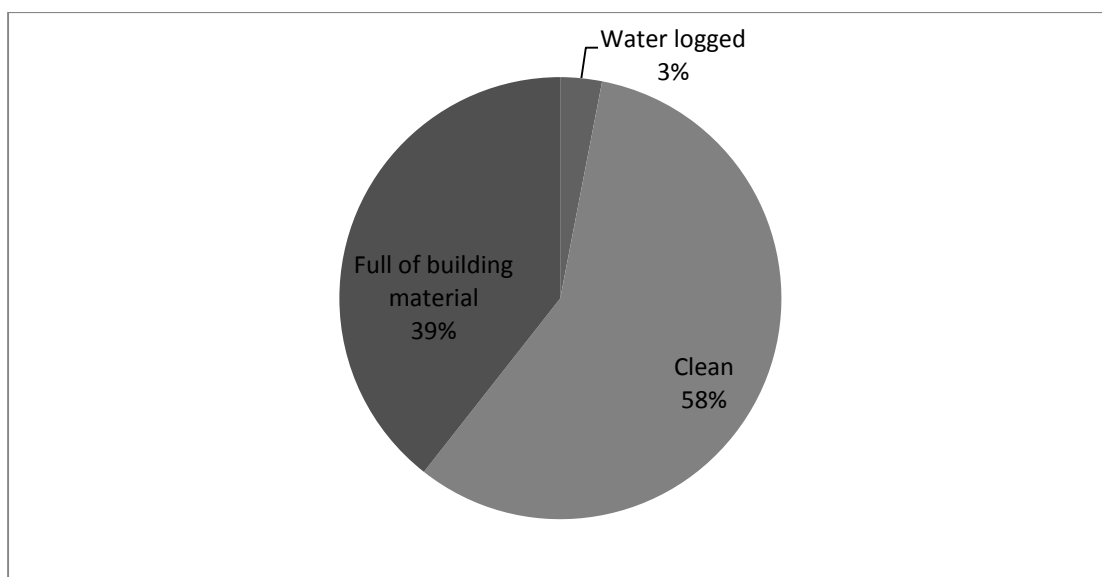
Figure No. 25: If Someone Gets Diarrhea



Among them, 44% of the students' response was to rush to the medical if someone gets diarrhea. Rest of 38% was for self-medication and 17% for providing ORS. Least of 1% response was to take no action.

4.2.26 Cleanliness of the College Compound

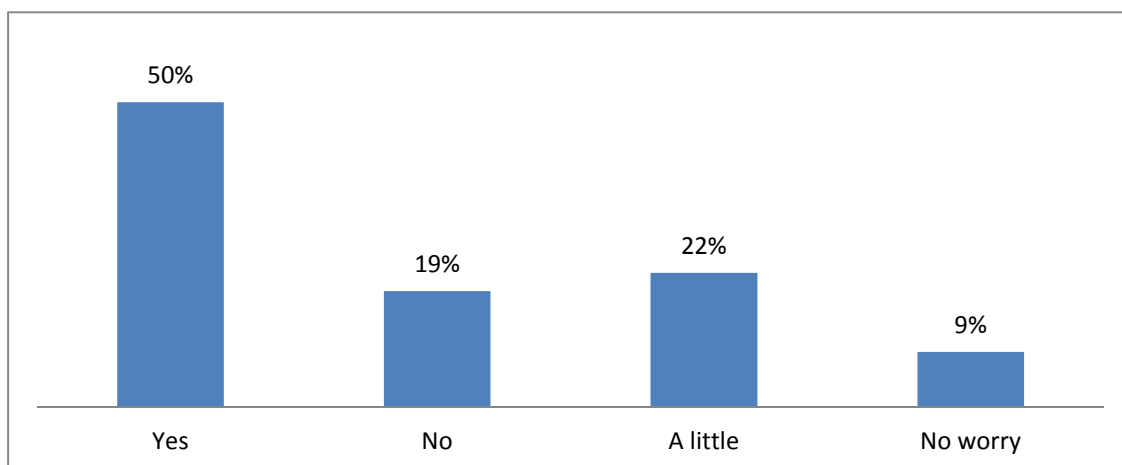
Cleanliness of the college also is basic sanitation background for the learning place where they spent most of the learning times.

Figure No. 26: Cleanliness of the College Compound

College compound has been found clean by the 58% response and less of them had responded full of building material by 39%. Very least 3% responded to be water logged.

4.2.27 Aware of Source of College Drinking Water

Water has a major role in the metabolism of the body and nutrient intake. So, it is very critical for the maintenance of the body temperature as well. This is another way to transmit the disease if the water contains pathogens so directly affecting the health.

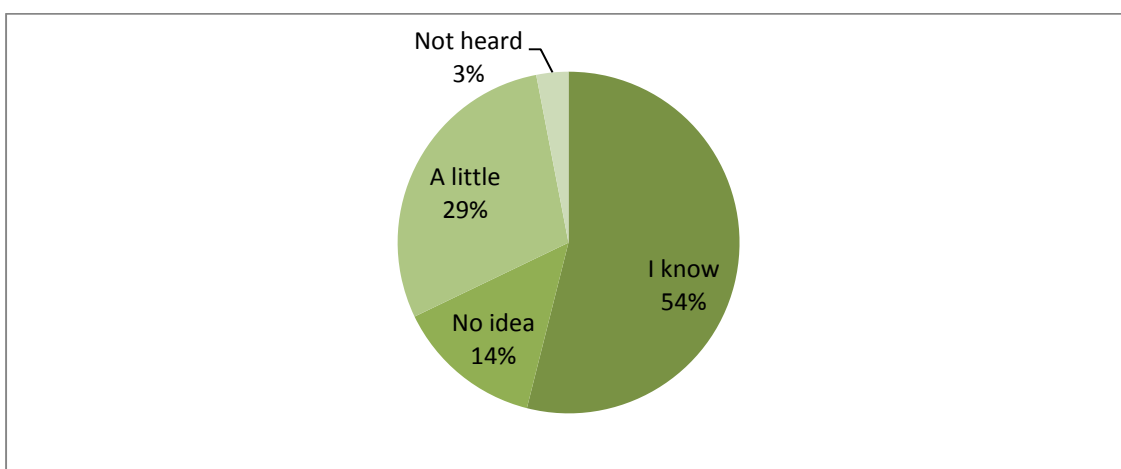
Figure No. 27: Aware of Source of College Drinking Water

It has been seen that half of the students know the source of college drinking water. About one fifth of the students did not know the source, 22 % of the students knew little about the source and 9% were not aware about the source.

4.2.28 Knowledge about Communicable Disease

Communicable disease can be detrimental at times. The life can be lost in days if they are not managed. So, it includes the knowledge water borne and food borne along with the communicable diseases.

Figure No. 28: Knowledge about Communicable Disease



More than half that is 54% knew about the communicable diseases, 29% were aware a little, 14% did not have idea and 3% had not heard the communicable disease.

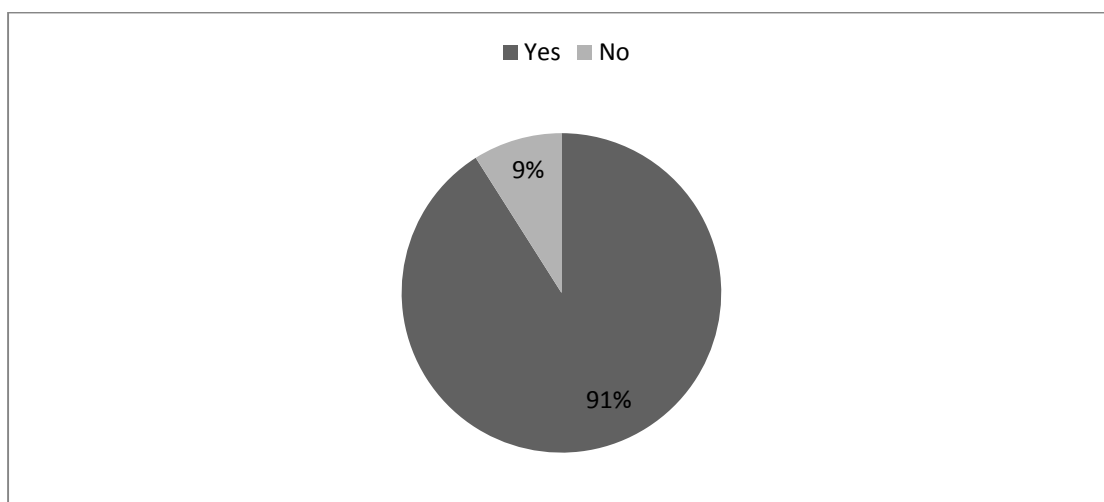
4.2.29 About the Sanitation and Hygiene Program in the College

College sanitation program involves the participation for the hygienic environment to establish the healthier places. But the response was less than average. That means college has to do more work for the programs involving sanitation.

Table No. 5: About the Sanitation and Hygiene Program in the college

Sanitation program in the college	No. of respondents	Percentage
Yes only	69	42%
Many programs	20	12%
Few programs	6	4%
Sometimes	6	4%
By BSW students	20	12%
Punish who do not clean	4	2%
Every month	4	2%
Twice a month	4	2%
Twice a week	4	2%
By removing surrounding waste	4	2%
No	14	8%
Unanswered	10	6%

Among the total of 165 respondents, 6% that is 10 respondents did not answer. Most of them mentioned 'yes' only and some of them mentioned the frequency of the sanitation program occurred in the college.

Figure No. 29: About the Sanitation and Hygiene Program in the college

Among which, 91% response was college having sanitation program and according to 9% there is no sanitation program in the college.

4.2.30 Measures to Improve Family Sanitation

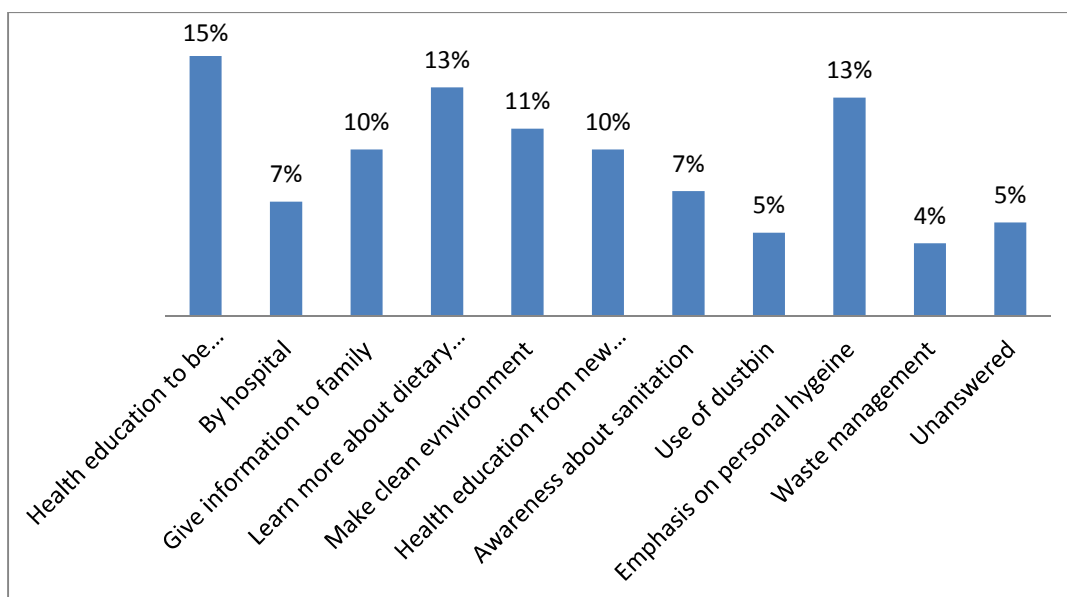
Everybody grows up at family, so improvement sanitation and hygiene of the family brings the concept at first to be clean and hygiene.

Table No. 6: Measures to Improve Family Sanitation

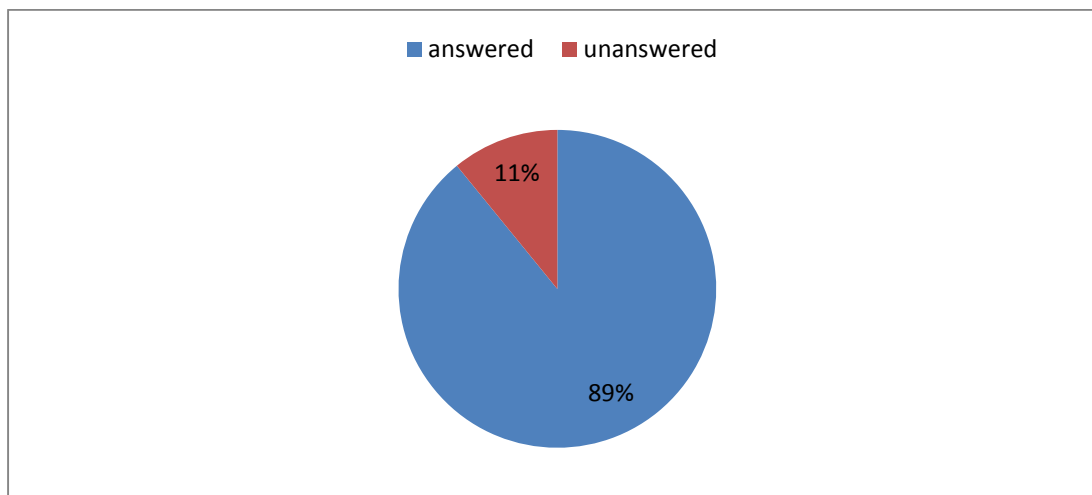
Measure to make family sanitation	No. of Respondents	Percentage
Health education to be provided	25	15%
By hospital	11	7%
Give information to family	16	10%
Learn more about dietary education	22	13%
Make clean environment	18	11%
Health education from newspaper/tv	16	10%
Awareness about sanitation	12	7%
Use of dustbin	8	5%
Emphasis on personal hygiene	21	13%
Waste management	7	4%
Unanswered	9	5%

Most of the students chose the measures to improve sanitation in the family was to provide health education then to provide the dietary education in the home, personal hygiene, making clean environment etc. Among 165 respondents, 95% chose the different measures to improve the family sanitation but 5% remained unanswered. Providing health education was 15%, dietary education and personal hygiene was same of 13%, making clean environment was 11%, health education from media like TV and giving information was same of 10%, both 7% by hospital and awareness about sanitation. Use of dustbin was 5% and by waste management was 4%.

It can be represented by the following graph-

Figure No. 30: Measures to Improve Family Sanitation**4.2.31 Measure to Improve Sanitation in the Country**

The students' response was 89% and 11% did not respond to the question. If they have the knowledge of sanitation in the home, class they can build the nation.

Figure No. 31: Measure to Improve Sanitation in the Country

Most of the responses (25%) were to manage waste management for the improvement of sanitation in the country and lesser extent in awareness (21%), proper education (16%) and others in less than 10% for health education in school, sanitation program from home to family, family to village, village to city and, finally city to country.

Table No. 7: Measures to improve sanitation in the country

Measures to improve sanitation in the country	No. of respondents	Percentage
Waste management	42	25 %
Awareness	34	21 %
Proper education	26	16 %
Discussion	2	1 %
Sanitation education /training should be provided	6	4 %
Pollution control	2	1 %
Government should operate sanitary program	6	4 %
Health education is provided in school	9	5 %
Management of transport and industry	2	1 %
Sanitation program from family-village-city-country	8	5 %
Improvement of environment	6	4 %
Family sanitation	4	2 %
Unanswered	18	11 %

4.3 Summary/Discussion of Finding

The study was performed for the students of studying bachelor level studying students. The major findings were tabulated as following.

3.3.1 Personal sanitation status-

All the personal sanitation questions were analyzed for the assessment.

Table 4.3.1 Personal sanitation status

There were 11 questions to assess the personal sanitation and hygiene status which is tabulated as following. It included from the brushing of teeth, combing hair, washing uniform, use of shocks etc.

Table No. 8: Personal Sanitation and Hygiene Practice

Q. No.	Percentage	The average of the percentage
1	70 %	57.18≈57 %
2	55 %	
3	49 %	
4	27 %	
5	70 %	
8	49 %	
9	76 %	
13	24 %	
15	79 %	
21	76 %	
28	54 %	

The personal sanitation status was found to be satisfactory since the overall average was 57% of all the participated respondents.

3.3.2 Family Sanitation-

For the family sanitation status overall family sanitation questions were analyzed.

Table 4.3.2 Family Sanitation Status

In family sanitation, the status involved were the use and type of latrine at the home, type of dustbins, wastes, management of the waste from the home etc.

Table No. 9: Family Sanitation Practice

Question No.	Percentage	Average of the percentage
6	61 %	48.87≈49 %
10	24 %	
14	92 %	
16	58 %	
17	59 %	
18	30 %	
19	40 %	
25	27 %	

Family sanitation included the assessment from the use of latrine, source of drinking water, place to dry cloths, managing household waste, municipal waste collection vehicle pattern, types of dustbin at home etc. Measures to improve sanitation in the family were mostly to make clean environment and the country resulting the recommendation of waste management, awareness, proper education, discussion among the people about the cleanliness, even government is asked to operate sanitation program.

4.3.3 College sanitation

College sanitation was assessed from the types of latrine used in the college, class room waste management, and lunch eating pattern, source of health education, proper location of the college, class room light sufficiency, college surrounding sanitation and source of drinking water at the college premises.

Table 4.3.3 College Sanitation Practice

Table No. 10: College Sanitation Practice

Question No.	Percentage of each question	Average of the percentage
7	56 %	62.50=63 %
11	60 %	
12	68 %	
20	65 %	
22	59 %	
23	41 %	
24	73 %	
26	58 %	
27	54 %	
29	91 %	

Majority (91%) of the answer responded to the occurrence of sanitation program in the college and least response found to be 41% for the sufficiency of the light.

4.4 Major findings

1. The knowledge about the sanitation and hygiene was assessed by keeping the initial question. The assessment was about the knowledge about sanitation most of the response (70%) was they know about sanitation. Secondly 22% was the response was they knew very well. Of them 6% of the students are not aware of this and very little about the sanitation knowledge is 2% of them.
2. In the case of pattern of combing hair was found that most of the students 55 % (90) comb once a day and 39%(65), 1% of them that is 2 persons never combed their hair. Combing is also an indicator for the sanitation.
3. Brushing teeth also a main indicator for hygienic condition. The findings were found that 49 % of the population brushed once a day and another 49% of them had a habit of brushing twice a day. 2% of them had a habit of brushing once a week and there were no students who did not brush. This finding seems to be significantly improves the sanitary situation.
4. The frequency of washing cloths and most importantly the uniform has the extensive value for the health. Most of the students 73% responded that they wash the uniform twice a week and 27 % wash every day. There were none of them who wash the uniform once a week or never.
5. How the socks are used give a clear indication for the healthy state of the individual. Among the respondents the result was Most of them (70%) change the shocks every day and 20% (32) wash every day. Few of them (10%) wash the shocks once a week. It was found that nobody sprays the dirt with spray.
6. The use of latrine by personal, family, or public has another effect of the over all health. 100 respondents (61%) have the family latrine and 23% that is 32 persons have the personnel latrine. Common family use toilet by 16%. It has a good indicator that nobody uses the public toilet at the residence.
7. The latrine in the college provides the clear basis for the status of the student college sanitary relation and affecting the students' personal health. The latrine at the college was separate for boys and girls were 56% mentioned by 93 students and common for 21 %. Every floor of latrine was stated by 23% population.

8. It is mandatory that washing after latrine. These days it is followed by most of them but differs in which they use the material to wash. Washing hand with soap was found to be 49% and 38% with hand wash. With water only is 8% and least with sanitizer that is 5%.
9. Drying cloths is very important for the killing of the pathogens, if it is not properly dried. The habitual of drying cloths on the sun was found to be 76% of 126 respondents. A lesser population of 14% (23 students) had a habit of drying cloths inside the room. Among them 10% of the population used washing machine to dry cloths. None of them had the habit of drying clothes in the shade which indicated the good practice.
10. Drinking water is a major problem in Kathmandu. About them 40% (66) used the Jar water. Filtering was seen as the second major way of drinking water accounting 35% of 57 students. Boiling water is used for drinking only by 24% of 57 students. Very few of 1% of 2 respondents using water supply.
11. Some colleges manage the room waste properly. It was observed that 60% (99) of the students have the habit of managing classroom waste at class dustbin and 21% answered that they put the waste inside their bag. Others 12% (20) responded that they did not produce the waste while in the college while 7% of them had the habit of throwing classroom waste everywhere.
12. Having lunch in the college whether inside the college or outside the college area matters for the best health practice, in spite of some canteen provide hygienic food. Rather cooking at home and carrying helps to provide the good food. It was also observed that the good sign of having lunch at college which is prepared in the home. In this regard, only 21 % of the students take lunch at college canteen. It has been also seen that least per cent of 3 % do not take lunch.
13. Eating junk food is not considered as the healthy practice for the better health. Junk food consumption was observed almost similar with the students who took once a day and once a week that is 35% and 33%. About a quarter of them had no habit of junk food that is 24% of the population and 8% took often the junk food.
14. Washing and eating from outside has the chances of infection if directly consumed without proper washing. So for this they had the response more than

- 90 % responded that having fruit is after washing, 5% said directly and 2% by boiling and less than 1 % indicated that peeling off the fruit.
15. Another aspect of assessment of sanitation and hygiene can be the personal habit of eating and the use of the dustbin while having food outside. On this regard, most of them (130) responded to keeping in the bag, secondarily, not outside eating is 13%, few of them (7%) said throw away and 1 % showed throwing everywhere.
 16. Household waste also can be managed in different ways. More than half of the population has the management of household waste to deliver on municipal vehicle, 38% does by composting and lesser does by composting 14 of them (8%) to everywhere and 1 % of them in the river. So it concludes that they had a fairly good practice of managing household waste.
 17. Since this college is in the metropolitan city, most of the students are from the metro city. Although their practice to the municipal assessment was observed as Majority of the students' 60% response was to manage by municipal vehicle. Among them 26% did not manage by the municipal, 10% did not have municipal vehicle and 4% collected rarely by municipal vehicle.
 18. The number of types of dustbin is categorized to collect the different types of waste. Most (47%) of the respondents' answered was 2 types of dustbin. Only 1 type of dustbin answered by 18%, 2 types of dustbin by 47%, 3 types of dustbin by 24% and 4 types of dustbin by 11%. It is clear that most of them aware of the types of dustbin that is biodegradable and non-degradable that is plastics and others.
 19. The different types of waste produced from the home are also categorized and assessed how much they were aware of that. Most of the respondents (53%) had the response was household waste is of two types. Lesser in 22% had 3 types of household waste, 13% had 4 types and 12% responded one type of household waste. It was found that most of them were aware about the types of household waste.
 20. About the health education provider, it had been correctly answered by 65% and 35% answered the differently by health education is provided by other personnel like teacher, parents and health workers. Among them answers were by health professional only by 22%, by parents 6% and by teacher 7%.

21. It is also important that what kind of source of sanitation information or knowledge is available for the individuals. They can be internet based sources or traditional based sources. On this regard, Source of sanitation information was responded correctly by 76% that is all by internet, books, and newspapers ,and 6% was by books, 9% by internet and rest of them (9%) mentioned by newspaper. It is significant in the case of the source of information.
22. Proper locations of the college can a factor to get knowledge and their healthy life style. In the city Centre was the choice of majority of the students for the college by 59%. Lesser of 18% preferred the location at the busy place and 17% chose to be close by the city. Rest of 6% blindly chose the option. Centre can be choice because it can be convenient to travel and proximity.
23. If the source is not sufficient, it affects the learning ability. The sufficiency of the light in the class room was found normal by 46% and sufficient was 41%. Insufficiency and attractive light system were both found lesser than 8%. So it indicates that the light source is less than average.
24. About the college sanitation, the result was cleanliness of the college was mentioned clean by 73% and secondly 17 % of them mentioned dirty, only 3% of them responded attractive and 7% of them had no idea. It showed that the college is good enough for cleanliness.
25. The question about the getting diarrhea was among them, 44% of the students' response was to rush to the medical if someone gets diarrhea. Rest of 38% was for self-medication and 17% for providing ORS. Least of 1% response was to take no action.
26. College compound has been found clean by the 58% response and less of them had responded full of building material by 39%. Very least 3% responded to be water logged.
27. It also matters that they have to know the source of the drinking water. It has been seen that half of the students know the source of college drinking water. About one fifth of the students did not know the source, 22 % of the students knew little about the source and 9% were not aware about the source. It did now show the good as only 50% are aware of the source of the drinking water.
28. At least being the student of bachelor's degree, they have to know about the communicable diseases. More than half that is 54% knew about the

communicable diseases, 29% were aware a little, 14% did not have idea and 3% had not heard the communicable disease.

29. Among the total of 165 respondents, about the sanitation and hygiene program in the college, among which, 91% response was college having sanitation program and according to 9% there is no sanitation and hygiene program in the college, 6% that is 10 respondents did not answer. Most of them mentioned 'yes' only and some of them mentioned the frequency of the sanitation program occurred in the college.
30. Most of the students chose the measures to improve sanitation and hygiene in the family was to provide health education then to provide the dietary education in the home, personal hygiene, making clean environment etc. Among 165 respondents, 95% chose the different measures to improve the family sanitation but 5% remained unanswered. Providing health education was 15%, dietary educational and personal hygiene was same of 13%, making clean environment was 11%, health education from media like TV and giving information was same of 10%, both 7% by hospital and awareness about sanitation. Use of dustbin was 5% and by waste management was 4%.
31. Most of the responses (25%) was to manage waste management for the improvement of sanitation in the country and lesser extent in awareness (21%), proper education (16%) and others in less than 10% for health education in school, sanitation program from home to family, family to village, village to city and, finally city to country.

4.5 Over all major findings-

1. Personal sanitation and hygiene Practice-

It has been calculated from the entire personal sanitation and hygiene question. The personal sanitation and hygiene status was found to be satisfactory since the overall average was 57% of all the participated respondents.

2. Family sanitation and hygiene status-

Family sanitation and hygiene included the assessment from the use of latrine, source of drinking water, place to dry cloths, managing household waste, municipal waste collection vehicle pattern, types of dustbin at home etc. Measures to improve sanitation in the family were mostly to make clean

environment and the country resulting the recommendation of waste management, awareness, proper education, discussion among the people about the cleanliness, even government is asked to operate sanitation and hygiene program.

3. College Sanitation Practice-

College sanitation and hygiene was assessed from the types of latrine used in the college, class room waste management, and lunch eating pattern, source of health education, proper location of the college, class room light sufficiency, college surrounding sanitation and source of drinking water at the college premises.

Chapter V

Conclusion and Recommendations

5.1 Conclusion

In summary, the study focused on the behaviors of the sanitation and hygiene practice of government college level students studying at bachelor level first year including 165 students is a small scale cross sectional study done at a college in the capital Kathmandu. As the lack of good sanitation and hygiene practice results in different kinds of communicable disease outbreak and may lead to death. It was very important to assess the status of the sanitation practice in the students in the college level. Poor sanitation can cause the transmit of different diseases like typhoid, diarrhea, dysentery, cholera, malaria, polio and infections.

The data were taken from the students provided by the observer's presence in the class hour at the campus premises only. The outcome of the results was carried out in three major categories sanitation and hygiene. In the case of the personal sanitation and hygiene practice was little higher than the half of the normal behavior. In case of the family sanitation and hygiene was observed less than the half of the measurement. It was seen that the students are not much aware of the family sanitation and hygiene measures. In case of the college sanitation, the level was found to be higher more than 60%. Other measures to improve the sanitation and hygiene for the family and for the nation was also assessed which turned out to be more emphasis on providing health education for the measures to improve family sanitation and hygiene , and management of the waste was the highest priority for the improvement of the sanitation in the country.

The objective of the study was to attempt the study of the sanitation and hygiene practice of the students in the campus level including the different faculty of the bachelor level first year students. The evaluation reports that the sanitation and hygiene practice had lower value with the family and the personal sanitation index.

As sanitation and hygiene practice has a great role in the health of the individuals, personnel and family that directly affects the learning ability of the students and every individual. So, it had to be assessed via the different measures for educational institutes and other criteria. The evaluation of this study showed the family sanitation

and hygiene was under the average, not good state of the personal sanitation and a bit satisfactory state of the college sanitation. Majority of the students focused to improve the family sanitation is by the provision of health education to provide the family, and improvement of the waste management to improve the sanitation of the country.

As the data had been categorized to the 3 types of sanitation personal, family and college sanitation. Personal sanitation and hygiene outweighed more than half that is 57%. Sanitation practice is an important for living the healthy life and for the community. The condition of sanitation status indicates the wellbeing of the individuals. The practice is not followed properly leads to the different kinds of communicable disease, which brings million deaths across the world. So has the problem in those developing countries like Nepal, which has more rural areas and less literate.

Personal sanitation and hygiene in which different questions from the knowledge about sanitation and hygiene such as combing of hair, brushing of teeth, wearing of shocks, having bath, washing of hand after latrine, washing of uniform, eating habit such as junk food, eating pattern of fruit, accessing sanitation information had been included. According to them, the data were arranged in the excel sheet and calculated their percentage. Total questions numbers were 11 for the assessment of the personal sanitation and hygiene. That was found to be just satisfactory by 57% for the personal sanitation. In case of the family sanitation status assessment, the status was found just lower than the average that is 49%. This has to be more assessed. On the other hand the college sanitation and hygiene status was to be found 63% which is more than average.

5.2 Recommendations

On the basis of this study, some of the important recommendations are formulated as follows.

5.2.1 Policy related

-) Sanitation and hygiene is not a complex problem in case of the country, but it can be solved from the national level to lower local levels by actively implementing the rules by the nation.

-)] The laws have to be fully implemented to those who do not follow the rules by the authorities for example waste thrown everywhere in the roadside areas, in the market places.
-)] There should be the proper fine and punishment system to those who breach the law. It has to be from the federal, provincial and local level.

5.2.2 Practice related

-)] Sanitation and hygiene literacy has to be learned from the individuals
-)] Awareness about the health related programs has to be carried out for all the population.
-)] Sanitation and hygiene assessment has to be done in three federal, provincial and local levels.
-)] It can be done for the different professionals and occupational workers.

5.2.3 Further Research related

This study gives the general background of the students studying in the college level. It does not speculate the overall aspects of the sanitary condition of the students of all entire nations of the classes. So, Research has to be done in every aspect of life and the society is complex made up of different levels of population having different profession. Being Nepal is three geographical ranges, additional precautions has to be developed to assess the sanitation condition from Himalaya, Hilly and Terai region. There is a cultural variation of the society; some aspects differ from one culture to another culture, caste and ethnicity as well. Variations of the profession such as the people working the construction may have the different precautions; locals working in the agriculture, health professional working the health diagnostic centers, labors working in the industries require different kinds of sanitation practice. They can be all assessed by launching and moderating with the different institutes, health organization and NGOs and INGOs.

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