World Wide Journal of Multidisciplinary Research and Development

WWJMRD 2016; 2(1): 105-114
www.wwjmrd.com
e-ISSN: 2454-6615

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Perception and practices of dietary habits among the grade ten students of Nepal

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Abstract
Dietary habit of people can be affected from the level of awareness, availability and accessibility of nutritious foods, socio-cultural orientation of individual, perception towards the food consumption practices and other environmental factors. It is commonly understood that dietary habit can affect the health and performance of people. The study was focused to identify the perception and practices of dietary habits among the grade ten students of Nepal. The study was based on the descriptive research design and sample was selected from the public and private schools of Kaski, Syangja and Parbat districts. Total 511 students were selected. The study found that more than 90% students were aware about the benefit of dietary food for the health and academic achievement. Students were practicing to take thefoods which were recommended by their parents. They liked homemade and locally available foods than the readymade foods. Though, the majority of students reported that they ate fruits monthly 1 and 2 times only. More than 90% of students reported that Milk, meat and fruits were the main nutrition for the students which can positively effect in their health and study. The study observed that there was need to improve the practice of taking the nutritious food and parents should be conscious. Economic status of parents had significant effect on the dietary habit of children. The study recommends studying dietary habit of students by observing their real food consumption practices in house which can give more real practices of food habit.

Keywords: Dietary habit, Nepal, perception, practice, Student

1.0 Introduction

It is the general understanding and experiences that people's perception and real practices are not similar in many aspects. Perception is the subjective analysis; mental construction and practices are the objective measurement; behavioral aspects. Practical work can be affected from the various external factors so that also in many cases people cannot perform the same as they wanted to do. In relation to the dietary habit also; students are regularly taught about the nutritious food and its consumption practices. Theoretically, students are aware on that also but in practices of consumption of dietary food, students may not be able to eat regular diet also because of the economic crisis, easy access on market. Inadequate quantity of dietary habit may cause the disease and can negatively affect the academic achievement of students.

Dietary habits and physical inactivity contribute to mortality and several common non-communicable diseases. World Health Organization estimates that 80% of cardiovascular disease, 90% of type 2 diabetes and 30% of all cancers could be prevented by a healthy diet, adequate amounts of physical activity and by people not smoking. Too high an energy intake and physical inactivity are also the direct causes of the increasing prevalence of overweight and obesity (National Food Administration, July 2005).Human body has different types of health aspects. People face various types of diseases because of the unhealthy dietary habits. Besides that dietary habit also influences the physical and mental achievement of children during their study. As called 'sound mind is in sound body', physically or mentally sound students can perform better if his/her health is good and good health is determined by the dietary habit. The result of one previous study conducted among the 102 participants of employed U.S citizens, ages 21 and over illustrated that work stress explains 15.84% of the variance of unhealthy eating habits (Endo, 2013). In relation to the above finding, it can be concluded that the poor dietary habit can create health problem which hinders the progress of students.

Proper and adequate dietary habits have positive relation with the academic achievement. Some foods make people lazy and some very active. The ingredients found in the food have different role in managing our body. However, the dietary habits change as per the age. Many studies have shown that eating habits differ depending on the age. In a study carried out by Gillian (2000), proportions of young people consuming certain foods and drinks were found to be dependent on age differences. The quantities of foods consumed increased with age in general, with the exception of whole milk, the consumption of which decreased with age. Boys ate larger amounts than girls of most foods by the age of 11 years and of some foods by the age of 7 years (Smithers, Gregory, Bates, Prentice, Jackson, & Wenlock, 2000). Kassak, Dagher and Doughan explained in their study that the increased prevalence of overweight indicates that the energy intake is too high in relation to energy expenditure. Ninety per cent of the adult population eats less fiber than is recommended, 80 percent eat too much fat, 96 per cent too much saturated fat and half of them consume too much refined sugar(Kassak, Dagher, & Doughan, 2001). A nutritional study of 4-year-olds in Sweden shows that they generally receive enough nutrients. The amount of fat and sugar they eat is however too high and their consumption of fruit and vegetables are too low. Only one in ten 15-year-olds in the Stockholm area eat fruit and vegetables every day (NIPH, 2005).

Various previous studies have reported the significant relationship between the dietary habit and disease prevalence, dietary habit and physical or mental performance of people. So considering the fact of previous study, the study is going to identify the perception and practice of dietary habit among the grade ten students of Nepal.

Method

The study was based on the descriptive research design which described the perception and practices of dietary habit among the grade ten students. The study hadcollected the quantitative data by using the structured survey questionnaires. The random sampling technique was applied to select the students from Kaski, Syangja and Parbat districts of Nepal. Total 511 students were selected from the Public and Private schools. Statistical analysis of data was completed by using the SPSS.

Result & Discussion

The study had asked the individual students about their perception and practices of dietary habit. Students need adequate nutritious food to develop their creative power so that they can do the lot of hard work for study.

The table no. 1 reported that 99.2% students were aware that fruits and vegetables was good for their health followed by 90.8% reported that they eat nutritious foods every day and 51.1% used to eat fruits at least once a day. Similarly in total 98% said that their parents often encouraged them to eat healthy foods. In total 95.5% believed that a piece of fruit or some vegetables instead of a chocklet or biscuit for an after school snack. In total 82.4% said that their parents encouraged them to try a new type of food that parents were eating. Very few students (21.7%) practiced to take the milk tea in the morning.

Table 1: Perception towards Dietary Habits

Dietary _ Habit Frequencies			
Statements		Responses 'Yes'	
		N	%
Perception to dietary habit	I believe that eating foods like fruits and vegetables is good for my health	507	99.2%
	My parents/guardians eat fruits at least once every day	281	55.0%
	My family and I eat nutritious foods every day	464	90.8%
	I eat fruits at least once a day	261	51.1%
	My parents often encourage me to eat healthy foods.	501	98.0%
	It is better to have a piece of fruit or some vegetables instead of a chocklet or biscuit for an after school snack.	488	95.5%
	In morning, milk tea is good for my health	111	21.7%
	If my parents encourage me to try a new type of food that they are eating, I usually do	421	82.4%
Total participants were 511			

Source: Field survey, 2015

The perceptual and practical data presented in table no. 5 indicated that the students were highly aware about the dietary habit for their health. The data showed that the value of practices of eating the nutritious food was significantly lower than the perception. The reason may be the availability and accessibility of nutritious food in daily consumption. It is the problem of average people of Nepalese society.

Nutritious food for health of students

Students were asked about their choice of food from the perspective of nutritious. In day to day life, it is observed that most of the children like the junk foods than the typical Nepalese food prepared in house. Nutritious food helps to maintain a healthy body weight, improve overall mood, and reduced risk of developing diseases. This Medical News Today information article provides details on the top ten foods considered to be the healthiest, according to surveys and sources across North America and Western Europe. These top 10 foods were:

I) **Apples:** Apples are an excellent source of antioxidants, which combat free radicals. Free radicals are damaging substances generated in the body that cause undesirable changes and are involved in the aging process and some diseases. Researchers at The Florida State University said that apples are a "miracle fruit". In their study, the investigators found that older women who starting a regime of eating apples daily experienced a 23 percent drop in levels of bad cholesterol (LDL) and a 4% increase in good cholesterol (HDL) after just six months.

II) **Almonds:** Almonds are rich in nutrients, including magnesium, vitamin E, iron, calcium,

fiber, and riboflavin. A scientific review published in Nutrition Reviews3 found that almonds as a food may help maintain healthy cholesterol levels.

III) Broccoli: Broccoli is rich in fiber, calcium, potassium, folate and phytonutrients. Phytonutrients are compounds which reduce the risk of developing heart disease, diabetes and some cancers. Broccoli also contains vitamin C, as well asbeta-carotene, an antioxidant.

IV) Blueberries: Blueberries are rich in fiber, antioxidants and phytonutrients. Phytonutrients are natural chemicals found in plants. According to a study carried out at Harvard Medical School, elderly people who eat plenty of blueberries (and strawberries) are less likely to suffer from cognitive decline, compared to other people of their age who do not. Scientists at Texas Woman's University found that blueberries help in curbing obesity. Plant polyphenols, which are abundant in blueberries, have been shown to reduce the development of fat cells (adipogenesis), while inducing the breakdown of lipids and fat (lipolysis).

V) Oily fish: These types of fish have oil in their tissues and around the gut. Their lean fillets contain up to 30% oil, specifically, omega -3 fatty acids. These oils are known to provide benefits for the heart, as well as the nervous system. Oily fish are also known to provide benefits for patients with inflammatory conditions, such as arthritis. Oily fish also contain vitamins A and D. Scientists at UCLA's Jonsson Comprehensive Cancer Center found that prostate cancer progression was significantly slowed when patients went on a low-fat diet with fish oil supplements (Medical News Today, 2015).

VI) Leafy green vegetables: Studies have shown that a high intake of dark-leafy vegetables, such as spinach or cabbage may significantly lower a person's risk of developing diabetes type 2.

VII) Sweet potatoes: Sweet potatoes are rich in dietary fiber, beta carotene, complex carbohydrates, vitamin C, vitamin B6, as well as carotene (the pink, yellow ones). The Center for Science in the Public Interest, USA, compared the nutritional value of sweet potatoes to other vegetables. The sweet potato ranked number one, when vitamins A and C, iron, calcium, protein and complex carbohydrates were considered.

VIII) Wheat germ: Wheat germ is the part of wheat that germinates to grow into a plant - the embryo of the seed. Germ, along with bran, is commonly a by-product of the milling; when cereals are refined, the germ and bran are often milled out. Wheat germ is high in several vital nutrients, such as vitamin E, folic acid (folate), thiamin, zinc, magnesium, phosphorus, as well as fatty alcohols and essential fatty acids. Wheat germ is also a good source of fiber.

IX) Avocados: Many people avoid avocados because of its high fat content; they believe that avoiding all fats leads to better health and easier-to-control body weight - this is a myth. Approximately 75% of the calories in an avocado come from fat; mostly monosaturated fat. Avocados are also very rich in B vitamins, as well as vitamin K and vitamin E and have a very high fiber content of 25% soluble and 75% insoluble fiber. Studies have shown that regular avocado consumption lowers blood cholesterol levels. Avocado extracts are currently being studied in the laboratory to see whether they might be useful for treating diabetes or hypertension. Researchers from Ohio State University found that nutrients taken from avocados were able to stop oral cancer cells, and even destroy some of the pre-cancerous cells.

X) Oatmeal: Oatmeal is meal made from rolled or ground oats. In the United Kingdom and the Republic of Ireland, the term "porridge" or "porridge oats" are common terms for the breakfast cereal that is usually cooked. Interest in oatmeal has increased considerably over the last twenty years because of its health benefits. Studies have shown that if you eat a bowl of oatmeal everyday your blood cholesterol levels, especially if they are too high, will drop, because of the cereal's soluble fiber content. When findings were published in the 1980s, an "oat bran craze" spread across the USA and Western Europe. The oats craze dropped off in the 1990s. In 1997, the FDA (Food and Drug Administration) agreed that foods with high levels of rolled oats or oat bran could include data on their labels about their cardiovascular heart benefits if accompanied with a low-fat diet. This was followed by another surge in oatmeal popularity. Oats is rich in complex carbohydrates, as well as water-soluble fiber, which slow digestion down and stabilize levels of blood-glucose. Oatmeal is very rich in B vitamins, omega-3 fatty acids, folate, and potassium. Coarse or steel-cut oats contain more fiber than instant varieties (Medical News Today, 2015).

Table 2: Nutritious food for health of students

			Name of Districts			Total
			Kaski	Syangja	Parbat	
Which food is nutritious food for you?	Nepalese Food	Count	89	233	180	502
		% in total	17.7%	46.4%	35.9%	100.0%
		% within district	98.9%	98.3%	97.8%	98.2%
	Junk Foods	Count	1	4	4	9
		% in total	11.1%	44.4%	44.4%	100.0%
		% within district	1.1%	1.7%	2.2%	1.8%
Total		Count	90	237	184	511
		% in total	17.6%	46.4%	36.0%	100.0%
		% within district	100.0%	100.0%	100.0%	100.0%

Source: Field survey, 20

The table no. 2 reported that in total 98.2% had said that Nepalese food was the more nutritious food for them than the junk foods whereas 1.8% said the junk food was very nutritious for the health of students. District wise, comparatively students of Parbat liked the junk food more than Syangja and Kaski. There was significant different between the Kaski and Syangja in % of students who liked the junk food.

Favourite food of students

In the Nepalese society, we can find the majority of people like the non-veg items; likes meat and fish. It is also observed that vegetarians are mostly influenced by any specific religion. In individual practice, regular consumption of fruits is rare. But the data presented in the table no. 3 showed the interesting result that in total 54.2% students said that their favourite food was fruits items than the milk and meat. Similarly, 25% said that their favourite food was meat followed by the 20.7% liked the milk as the favourite food.

District wise, in total 42.2% students of Kaski district, 59.5% of Syangja and 53.3% of Parbat district liked fruits whereas 34.4% students of Kaski district, 22.4% of Syngja and 23.9% of Parbat liked the meat and 23.3% students of Kaski district, 18.1% of Syangja and 22.8% of Parbat liked the Milk.

Table 3: Favourite food of students

			Name of District			Total
			Kaski	Syangja	Parbat	
Which is your favourite food	Milk	Count	21	43	42	106
		% in total	19.8%	40.6%	39.6%	100.0%
		% within district	23.3%	18.1%	22.8%	20.7%
	Meat	Count	31	53	44	128
		% in total	24.2%	41.4%	34.4%	100.0%
		% within district	34.4%	22.4%	23.9%	25.0%
	Fruits	Count	38	141	98	277
		% in total	13.7%	50.9%	35.4%	100.0%
		% within district	42.2%	59.5%	53.3%	54.2%
Total		Count	90	237	184	511
		% in total	17.6%	46.4%	36.0%	100.0%
		% within district	100.0%	100.0%	100.0%	100.0%

Source: Field survey, 2015

Milk is an important part of our diet. We begin drinking it when we are young, but our intake decreases as we get older. Some people shy away from it because they fear that it will add too much fat to their diet. Others leave it out because they believe that they no longer need it. It is a great source of vitamins and nutrients, and it has several health benefits, such as:

1. Glowing Skin: Milk has several nutrients which help skin look its best.
2. Healthy Bones and Teeth -Milk is a great source of calcium, which is essential for healthy bones.
3. Muscles: Milk contains protein, which helps to rebuild muscles.
4. Weight Loss: Studies show that women who drink low-fat or skim milk lose more weight than those who exclude milk from their diet.
5. Less Stress: Milk is a great way to de-stress at the end of the day. A glass of warm milk will help to relax tense muscles and soothe frayed nerves.
6. Healthy Body: Milk has properties that lower high blood pressure and risk of strokes. It reduces the liver's production of cholesterol, and it can act as an antacid. Vitamins A and B in milk can help build good eyesight. Milk has also been show to help lower risk of certain cancers. (FITDAY, 2013)

Most people consider vegetables and fruits to suffice when it comes their daily nutritional needs while also thinking that plant protein is better (and safer) than animal protein. As this is not true, here is a list of the health benefits of eating meat that all contribute to carrying out vital metabolic functions but also giving one a lot of energy as well:

Benefit 1: Since meat contains a large amount of protein, this could be beneficial to the body as the need for protein is an important one for the body. Since protein is said to improve the overall health and well-being of one's body, there are other benefits such as the repair and building of body tissues as well as the production of antibodies that will protect the body from infections, thus strengthening the immune system as well. Most importantly, since meat contains all the essential amino acids, it definitely ranks as one of the best sources of protein.

Benefit 2: Of the many nutrients that meat contains, it is rich in iron, zinc and selenium. While iron helps in forming hemoglobin that transports oxygen to different parts of your body, zinc helps in tissue formation and metabolism as well as selenium breaks down the fat and chemicals in the body.

Benefit 3: Vitamins are also a big part of the one's diet, and Vitamin A, B and D are commonly found in meat as well. Not only do these vitamins promote good vision, stronger teeth and bones but it also support the central nervous system thus promoting mental health as well. Another big benefit of eating meat is the maintenance of your skin's health (Medica Daily, 2010).

Do you use any meal replacement products

There are different varieties available in market to replace the meal. People use the meal replacement products because of the health consciousness, no time to prepare meal, or to balance the cost of daily expenditure. Generally, dry foods or any junk foods are not taken as the more hygienic food so families or schools discourage the children to take the dry foods. Most of the children like such meal replacement products. As the same, the data

tabulated in the table no. 4 also stated that 65.2% students had used the meal replacement products.

Table 4: Do you use any meal replacement products

			Name of District			Total
			Kaski	Syangja	Parbat	
Use any meal replacement products (Bread, fruits or dry foods (Noodles, biscuit)	yes	Count	52	146	135	333
		% in total	15.6%	43.8%	40.5%	100.0%
		% within district	57.8%	61.6%	73.4%	65.2%
	no	Count	38	91	49	178
		% in total	21.3%	51.1%	27.5%	100.0%
		% within district	42.2%	38.4%	26.6%	34.8%
Total		Count	90	237	184	511
		% in total	17.6%	46.4%	36.0%	100.0%
		% within district	100.0%	100.0%	100.0%	100.0%

Source: Field survey, 2015

The data spoke that comparatively, more students of Parbat (73.4%) had taken the meal replacement products whereas 57.8% of Kaski and 61.6% of Syangja had reported their practice to take the meal replacement products.

Quantity of water drink per day

Water is important for the living animals. The human body is primarily water. Infants are made up of 70 percent water, while adult males are 60 percent and females are 55 percent. Water provides the medium to make our blood helps move food through digestive tract and removes waste from every cell in our body. Drink a minimum of 64 oz. of water daily to replace what is lost through metabolism. Specific water needs should take into account of physical activity level and the geographic region in which we live. Water hydrates the body by serving as a lubricant to moisten joints, and also protects our eyes, brain and spinal cord. Our digestive system uses water for vital fluids such as blood, saliva and digestive fluids to aid in the transportation of nutrients and removal of waste products. Water helps to move food through intestines, which is important in preventing constipation (Walker, 2011).

Considering the importance of water for health; the study visited the different public and private schools of three districts and askedstudents about their drinking habit and quantity of water drink per day. The data tabulated in the table no. 5 showed that in total 10.8% used to drink less than 1 litre water per day. Among them, 14.5% were from the Kaski, 63.6% were from the Syangja and 21.8% were from the Parbat district. Similarly, the study found that 45.4% students reported that they used to drink 1-2 litre per day. Among them, 17.7% of Kaski, 56.9% of Syangja and 25.4% were from the Parbat district. In total, 36% said that they drank 3-4 litre water per day. Among them, 20.7% were from Kaski, 28.3% were from Syangja and 51.1% were from the Parbat. In total, 7.8% said that they had drank 5 and more litres water per day; among them 7.5% were from Kaski, 45% from Syangja and 47.5% were from Parbat district.

Table 5: Quantity of water drink per day

			Name of District			Total
			Kaski	Syangja	Parbat	
How much water do you drink in one days?	less than 1 litre	Count	8	35	12	55
		% in total	14.5%	63.6%	21.8%	100.0%
		% within district	8.9%	14.8%	6.5%	10.8%
	1-2 litre	Count	41	132	59	232
		% in total	17.7%	56.9%	25.4%	100.0%
		% within district	45.6%	55.7%	32.1%	45.4%
	3-4 litre	Count	38	52	94	184
		% in total	20.7%	28.3%	51.1%	100.0%
		% within district	42.2%	21.9%	51.1%	36.0%
	5 and more litres	Count	3	18	19	40
		% in total	7.5%	45.0%	47.5%	100.0%
		% within district	3.3%	7.6%	10.3%	7.8%
Total		Count	90	237	184	511
		% in total	17.6%	46.4%	36.0%	100.0%
		% within district	100.0%	100.0%	100.0%	100.0%

Source: Field survey, 2015

Comparatively, the students who drank 3 to 5 litres water per day was higher in Parbat district than the other districts. The study had asked about the drinking habit only, not investigated that the drinking water was whether safe or not. The study had not observed the sources of drinking water and whether it was well purified or boiled or not.

Practices of eating vegetables

The data presented in table no. 6 showed that in total 28.2% students reported that they ate leafy vegetables daily whereas 17.8% said weekly 3 times, 12.9% said weekly 2 times, 33.7% said weekly one time, 5.5% said monthly 1 or 2 times and 2% students said that they never ate leafy vegetables. Various previous studies have shown that a high intake of dark-leafy vegetables, such as spinach or cabbage may significantly lower a person's risk of developing diabetes type 2. Researchers at the University of Leicester, England, said that the impact of dark green

vegetables on human health should be investigated further, after they gathered data from six studies. Spinach, for example, is very rich in antioxidants, especially when uncooked, steamed or very lightly boiled. It is a good source of vitamins A, B_6, C, E and K, as well as selenium, niacin, zinc, phosphorus, copper, folic acid, potassium, calcium, manganese, betaine, and iron (Medical News Today, 2015).

Similarly, the data showed that in total 73% ate potato daily followed by 10.4% ate weekly three times, 4.3% ate weekly two times, 9.4% ate weekly one time, 2% ate monthly one or two times and 1% ate never. It means, 1% didn't like potato. According to the U.S. Department of Agriculture (USDA), Potatoes are the No. 1 vegetable crop in the United States and the fourth most consumed crop in the world, behind rice, wheat and corn. Historically, Americans ate most of their potatoes fresh. Since the 1950s, however, processed potatoes — French fries and hash browns, for example — have grown more popular as the technology to freeze the vegetables has improved. According to the USDA, processed potatoes composed 64 percent of total U.S. potato use during the 2000s, compared to 35 percent in the 1960s. Americans, on average, eat 55 lbs. (35 kilograms) of frozen potatoes per year, 42 lbs. (19 kg) of fresh potatoes, 17 lbs. (8 kg) of potato chips and 14 lbs. (6 kg) of dehydrated potato products. Potatoes are often thought of as a comfort food — richly mashed with butter and sour cream or crisply fried in vegetable oil. But when prepared in these ways, they can lead to weight gain, diabetes and heart disease, according to the Harvard School of Public Health(Szalay, 2014).

The students were also asked about the eating habit of Mushroom. In total 1% only said that they ate daily followed by 4.5% said that weekly three times, 5.3% said weekly two times, 15.9% said weekly one time, 33.9% said monthly one or two times and 39.5% said never.

Many clinically used drugs such as aspirin, digitoxin, progesterone, cortisone, morphine, vincristine, vinblastine, taxol and several others are derived directly or indirectly from higher plants. Clinically important and well recognized drugs of fungal origin are penicillin, griseofulvin, ergot alkaloids and cyclosporine. Among the large resources of fungi, higher Basidiomycetes especially mushrooms are unlimited sources of therapeutically useful biologically active agents. There are approximately 700 species of higher Basidiomycetes that have been found to possess significant pharmacological activities (Mizuno, 1995; Wasser, 2002). Similarly, the investigations carried out by Thekkuttuparambil A. Ajith and Kainoor K. Janardhanann laboratory showed that medicinal mushrooms occurring in South India namely Ganodermalucidum, Phellinusrimosus, Pleurotus Florida and Pleurotus pulmonary possessed profound antioxidant and antitumor activities. This indicated that these mushrooms would be valuable sources of antioxidant an antitumor compounds. Investigations also showed that they had significant antimutagenic and anticarcinogenic activities. Thus, Indian medicinal mushrooms are potential sources of antioxidant and anticancer compounds (Thekkuttuparambil & Kainoor, 2007, p. 161).

The *FASEB Journal* recently published nine studies on mushrooms that were also presented at Experimental Biology 2013, which detailed a wide variety of health benefits, including:

Weight management: One study found that substituting red meat with white button mushrooms can help enhance weight loss. Obese participants with a mean age of just over 48 years ate approximately one cup of mushrooms per day in place of meat. The control group ate a standard diet without mushrooms.At the end of the 12-month trial, the intervention group had lost an average of 3.6% of their starting weight, or about seven pounds. They also showed improvements in body composition, such as reduced waist circumference, and ability to maintain their weight loss, compared to the control group.

Improved nutrition: One dietary analysis found that mushroom consumption was associated with better diet quality and improved nutrition.

Increasing vitamin D levels through your diet: Consuming dried white button mushroom extract was found to be as effective as taking supplemental vitamin D2 or D3 for increasing vitamin D levels (25-hydroxyvitamin D).

Improved immune system function: Long chain polysaccharides, particularly alpha and beta glucan molecules, are primarily responsible for the mushrooms' beneficial effect on your immune system. In one study, adding one or two servings of dried shiitake mushrooms was found to have a beneficial, modulating effect on immune system function.6 Another study done on mice found that white button mushrooms enhanced the adaptive immunity response to salmonella (Mercola, 2013).

Regarding the eating habit of 'Gundruk' (the locally made vegetable from leafy vegetables), in total 5.1% said that they ate daily followed by 11.2% said that weekly three times, 17.2% said weekly two times, 30.5% said weekly one time, 31.7% said monthly one or two times and 4.3% said never.

Similarly, students were also asked about the eating habit of 'Gedagudi'. In total 20.7% said that they ate daily followed by 17.2% said that weekly three times, 27% said weekly two times, 28.6% said weekly one time, 5.7% said monthly one or two times and 0.8% said never.

Students' eating habit of Cauliflower or Broccoli showed that in total 14.9% said that they ate daily followed by 14.5% said that weekly three times, 18% said weekly two times, 32.1% said weekly one time, 19.4% said monthly one or two times and 1.2% said never. It is found from the previous study that Broccoli is rich in fibre, calcium, potassium, folate and phytonutrients. Phytonutrients are compounds which reduce the risk of developing heart disease, diabetes and some cancers. Broccoli also contains vitamin C, as well asbeta-carotene, an antioxidant. A single 100 gram serving of broccoli can provide you with over 150% of the recommended daily intake of vitamin C, which in large doses can potentially shorten the duration of the common cold (Medical News Today, 2015)

Table 6: Practices of eating vegetables

Types of vegetables	Responses	Daily	Weekly 3 times	Weekly 2 times	Weekly 1 time	Monthly 1-2 time	Never	Total
Leafy vegetables	Frequency	144	91	66	172	28	10	511
	%	28.2	17.8	12.9	33.7	5.5	2.0	100
Potato	Frequency	373	53	22	48	10	5	511
	%	73.0	10.4	4.3	9.4	2.0	1.0	100
Mushrooms	Frequency	5	23	27	81	173	202	511
	%	1.0	4.5	5.3	15.9	33.9	39.5	100
Gundhruk	Frequency	26	57	88	156	162	22	511
	%	5.1	11.2	17.2	30.5	31.7	4.3	100
Gedagudhi	Frequency	106	88	138	146	29	4	511
	%	20.7	17.2	27.0	28.6	5.7	.8	100.0
Cauliflower/ Broccoli	Frequency	76	74	92	164	99	6	511
	%	14.9	14.5	18.0	32.1	19.4	1.2	100.0
Cucumber	Frequency	36	62	65	96	236	16	511
	%	7.0	12.1	12.7	18.8	46.2	3.1	100.0
Radish	Frequency	70	89	57	139	126	30	511
	%	13.7	17.4	11.2	27.2	24.7	5.9	100.0
Carrots	Frequency	49	59	60	122	176	45	511
	%	9.6	11.5	11.7	23.9	34.4	8.8	100.0

Source: Field survey, 2015

The data showed about the students' eating habit of Cucumber that in total 7% said that they ate daily followed by 12.1% said that weekly three times, 12.7% said weekly two times, 18.8% said weekly one time, 46.2% said monthly one or two times and 3.1% said never.

The eating practices of Radish showed that in total 13.7% said that they ate daily followed by 17.4% said that weekly three times, 11.2% said weekly two times, 27.2% said weekly one time, 24.7% said monthly one or two times and 5.9% said never.

Finally, the students were asked about their eating habit of Carrots showed that in total 9.6% said that they ate daily followed by 11.5% said that weekly three times, 11.7% said weekly two times, 23.9% said weekly one time, 34.4% said monthly one or two times and 8.8% said never.

Practices of eating fruits

The study had asked the students about their habit of eating fruits. As the data presented in table no. 7 showed that in total 7% said that they ate apple daily followed by 9.6% said that weekly three times, 11.4% said weekly two times, 39.9% said weekly one time, 29.9% said monthly one or two times and 2.2% said never.

According to the report of Medical News Today, Apples are an excellent source of antioxidants, which combat free radicals. Free radicals are damaging substances generated in the body that cause undesirable changes and are involved in the aging process and some diseases. Researchers at The Florida State University said that apples are a "miracle fruit". In their study, the investigators found that older women who starting a regime of eating apples daily experienced a 23% drop in levels of bad cholesterol (LDL) and a 4% increase in good cholesterol (HDL) after just six months (Medical News Today, 2015).

Similarly, the data also showed the eating habit of Banana. In total 6.7% said that they ate daily followed by 13.9% said that weekly three times, 20.2% said weekly two times, 31.7% said weekly one time, 24.9% said monthly one or two times and 2.7% said never.

Bananas are rich in carbohydrates, fibre, vitamins B6, and minerals like potassium and manganese which make them very nutritious. Here is a list of the amazing health benefits that the humble fruit offers.

1. Gives instant energy

With an average of 105 calories, banana is an excellent source of instant energy. It is especially great as an after workout food because it instantly replenishes the low levels of glucose in the blood – commonly seen after a workout. Eat a banana immediately after our workout to give us that instant kick of energy.

2. Fights muscle cramps

Ever worked out so hard that our muscles cramped up? Or woken up in the night because of a painful cramp in our legs? Bananas might just be the right solution for us — it actually protects us from muscle cramps. Because of its high magnesium and potassium content, bananas are the best way to replenish the minerals in your body. It helps relax the muscles and protects us from any further episodes of leg cramps.

3. Keeps our blood pressure under check

Bananas, being very rich in potassium and very low in sodium help manage blood pressure better. They also help maintain water balance in the body and detoxify the body to protect us against heart attackand stroke.

4. Keeps acidity at bay

Bananas are also very effective antacids. They coat the inner lining of the stomach and suppress acid secretion**,** thereby protecting us from stomach ulcers and acidity. Acidity can also be a cause for heartburn.

5. Beats constipation

Both the fruit and stem are rich in fiber and pectin which helps assist bowel motility and eases out constipation. Alternatively we can even drink the juice prepared from the banana plant stem.

6. Helps to recover faster after a bout of diarrhoea
Just had a bout of diarrhea? Banana can be beneficial after diarrhea too! Diarrhea leaves your body dehydrated and depleted of electrolytes. Restore the lost potassium by eating bananas.

7. A natural probiotic
The probiotic effect of fructooligosaccharides (FOS) present in bananas helps stimulate the growth of friendly bacteria in the intestine and protect against gastric disturbances. It is also good for our bone health too. Fermentation of FOS reduces the pH in the gut thereby promoting calcium absorption which in turn builds strong bones.Banana stem helps to eliminate fluids from the body. This diuretic effect is thought to be useful in eliminating kidney stones and also help detoxify the body. The stem is also believed to dissolve stones.

8. gives a good night's sleep
Having a banana before bed can help promote sleep. The soothing effect is due to high levels of tryptophan which gets converted to serotonin in the brain. This not only improves our mood but also makes us more alert and improves our concentration levels.

9. Provides a glowing skin
Apart from helping to get some much-needed beauty sleep, we can add bananas to our beauty regime too. Banana masks are a natural way to get smooth, supple and glowing skin. It has moisturizing properties which are extremely good for people who have dry skin.

10. Improves sex life
The phallic shape of banana makes it the most suggestive food. But the aphrodisiac effect of banana is not just confined to its shape. It is rich in nutrients that help produce sexual hormones and also enhance male libido. It also regulates the secretion of serotonin which is known to be responsible for the euphoric feeling after intercourse (Anchan, 2015).

Regarding the eating habit of Grapes, in total 4.9% said that they ate daily followed by 13.5% said that weekly three times, 12.5% said weekly two times, 27.4% said weekly one time, 38.9% said monthly one or two times and 2.7% said never.

The health benefits of grapes include their ability to treat constipation, indigestion, fatigue, kidney disorders, macular degeneration and the prevention of cataracts. Grapes, one of the most popular and delicious fruits, are rich sources of vitamins A, C, B6 and folate in addition to essential minerals like potassium, calcium, iron, phosphorus, magnesium and selenium. Grapes contain flavonoids that are very powerful antioxidants, which can reduce the damage caused by free radicals and slow down aging.Grapes, due to their high nutrient content, play an important role in ensuring a healthy and active life (Health Benefit: Organic Facts, 2015).

Similarly, the data also showed the eating habit of Papaya. In total 4.9% said that they ate daily followed by 11.2% said that weekly three times, 12.1% said weekly two times, 17.8% said weekly one time, 44.6% said monthly one or two times and 9.4% said never.

The eating habit of Orange showed that in total 7.8% said that they ate daily followed by 10.2% said that weekly three times, 18.6% said weekly two times, 23.9% said weekly one time, 36.8% said monthly one or two times and 2.7% said never.

Table 7: Practices of eating fruits

Types of fruits	Responses	Daily	Weekly 3 time	Weekly 2 time	Weekly 1 time	Monthly 1-2 time	Never	Total
Apple	Frequency	36	49	58	204	153	11	511
	%	7.0	9.6	11.4	39.9	29.9	2.2	100.0
Banana	Frequency	34	71	103	162	127	14	511
	%	6.7	13.9	20.2	31.7	24.9	2.7	100.0
Grapes	Frequency	25	69	64	140	199	14	511
	%	4.9	13.5	12.5	27.4	38.9	2.7	100.0
Papaya	Frequency	25	57	62	91	228	48	511
	%	4.9	11.2	12.1	17.8	44.6	9.4	100.0
Orange	Frequency	40	52	95	122	188	14	511
	%	7.8	10.2	18.6	23.9	36.8	2.7	100.0
Mango	Frequency	8	46	49	115	253	40	511
	%	1.6	9.0	9.6	22.5	49.5	7.8	100.0
Watermelon	Frequency	13	30	34	57	249	128	511
	%	2.5	5.9	6.7	11.2	48.7	25.0	100.0
Pineapple	Frequency	15	33	41	68	277	77	511
	%	2.9	6.5	8.0	13.3	54.2	15.1	100.0

Source: Field survey, 2015

The data also showed the eating habit of Mango that in total 1.6% said that they ate daily followed by 9% said that weekly three times, 9.6% said weekly two times, 22.5% said weekly one time, 49.5% said monthly one or two times and 7.8% said never.

Similarly, the data showed the eating habit of Watermelon that in total 2.5% said that they ate daily followed by 5.9% said that weekly three times, 6.7% said weekly two times, 11.2% said weekly one time, 48.7% said monthly one or two times and 25% said never.

Finally, the data presented the eating habit of Pineapple that in total 2.9% said that they ate daily followed by 6.5% said that weekly three times, 8% said weekly two times, 13.3% said weekly one time, 54.2% said monthly one or two times and 15.1% said never.

Practices of eating foods
The students were asked about their practice of eating foods; milk, ghee, meat, fish, honey, Horlicks/Burn bita,

Cake, Pizza …etc to know the frequency of use of such food items. All these food items are not easy available any time for all. All parents may not be afforded these food items all time also. So in some case, fooding practices as well as economic status and availability of these items may affect their practices.

The eating habit of Milk showed that in total 68.3% said that they ate daily followed by 5.7% said that weekly three times, 3.3% said weekly two times, 11.9% said weekly one time, 4.9% said monthly one or two times and 5.9% said never.

Similarly, the eating habit of Ghee showed that in total 26.4% said that they ate daily followed by 12.7% said that weekly three times, 9.6% said weekly two times, 33.5% said weekly one time, 11.2% said monthly one or two times and 6.7% said never.

The study also collected the data of eating habit of Meat showed that in total 3.9% said that they ate daily followed by 9% said that weekly three times, 18.6% said weekly two times, 48.8% said weekly one time, 14.3% said monthly one or two times and 7.4% said never.

Regarding the eating habit of Fish showed that in total 1% said that they ate daily followed by 4.9% said that weekly three times, 6.3% said weekly two times, 17.8% said weekly one time, 47.6% said monthly one or two times and 22.5% said never.

Examples of oily fish include salmon, trout, mackerel, herring, sardines and anchovies.

Table 8: Practices of eating foods

Types of Foods	Responses	Daily	Weekly 3 time	Weekly 2 time	Weekly 1 time	Monthly 1-2 time	Never	Total
Milk	Frequency	349	29	17	61	25	30	511
	%	68.3	5.7	3.3	11.9	4.9	5.9	100.0
Ghee	Frequency	135	65	49	171	57	34	511
	%	26.4	12.7	9.6	33.5	11.2	6.7	100.0
Meat(mutton, chicken or buff)	Frequency	20	46	95	239	73	38	511
	%	3.9	9.0	18.6	46.8	14.3	7.4	100.0
Fish	Frequency	5	25	32	91	243	115	511
	%	1.0	4.9	6.3	17.8	47.6	22.5	100.0
Honey	Frequency	57	34	46	109	222	43	511
	%	11.2	6.7	9.0	21.3	43.4	8.4	100.0
Horlicks/Burn Bita	Frequency	112	23	20	52	152	152	511
	%	21.9	4.5	3.9	10.2	29.7	29.7	100.0
Cake	Frequency	12	22	30	56	285	106	511
	%	2.3	4.3	5.9	11.0	55.8	20.7	100.0
Pizza	Frequency	3	21	22	27	221	217	511
	%	.6	4.1	4.3	5.3	43.2	42.5	100.0

Source: Field survey, 2015

The data presented in table no. 14 about the eating habit of Honey showed that in total 11.2% said that they ate daily followed by 6.7% said that weekly three times, 9% said weekly two times, 21.3% said weekly one time, 43.4% said monthly one or two times and 8.4% said never.

The data also presented the eating habit of Horlicks/Burn Bita showed that in total 21.9% said that they ate daily followed by 4.5% said that weekly three times, 3.9% said weekly two times, 10.2% said weekly one time, 29.7% said monthly one or two times and 29.7% said never.

Finally the data also presented the eating habit of Pizza showed that in total 0.6% said that they ate daily followed by 4.1% said that weekly three times, 4.3% said weekly two times, 5.3% said weekly one time, 43.2% said monthly one or two times and 42.5% said never.

Conclusion

The study found that the grade ten students of Kaski, Syangja and Parbat districts of Nepal were aware about the nutritious food but from the practice of eating the nutritious food was significantly low because of the problem of availability and accessibility of such food in daily consumption. It was observed that they daily consumed the locally available foods; like rice, pulse, milk, green leafy vegetable. Comparatively, habit of eating the fruit was low because community people did not give so much priority to the eating the fruits as the dietary foods. Other reason was the lack of availability in rural society also. Majority of students reported the monthly 1 or 2 times they used to take the different types of fruits items. The study conducted the face to face interview of students so reliability of data was based on the response of students. The study had not observed the daily food consumption practices of students in their house so that the study recommends to further researcher to study the longitudinal study of dietary habit of students by observing the real practice in their house.

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