



A STUDY ON THE ANALYSIS OF NUTRITIONAL SIGNIFICANCE IN THE TRADITIONAL FOOD SYSTEM OF LOCAL CUISINE AND ITS IMPACT ON HEALTH

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Abstract

The wonderful state of Uttarakhand will surely tantalize your taste bud with its mouth-watering culinary delights. Uttarakhand cuisine of the state is not only high in taste but nutritive value also. The development of these cuisines has been shaped by religious beliefs, and in particular by vegetarianism, the same cuisine which comes under the Uttarakhand is it Kumauni cuisine is food of the Kumauni region of Uttarakhand the food is very simple to make but very nutritious. The cuisine is an eternal part of tourism. a cuisine is a style of cooking characterized by distinctive ingredients, techniques and dishes, and usually associated with a specific culture or geographic region. A cuisine is primarily influenced by the ingredients that are available locally or through trade. Religious food laws, such as Hindu, Islamic and Jewish dietary laws, can also exercise a strong influence on cuisine. Regional food preparation traditions, customs and ingredients often combine to create dishes unique to a particular region. The food cannot be neglected as who so ever travelling will be consuming the same. It provides an opportunity to promote our hidden culinary treasure as cultural heritage of Uttarakhand. Regional food has tremendous health benefits and tourists are looking forward to try new food it gives a scope for developing culinary tourism in Uttarakhand. Kumauni food like Pahadialoo le guktke, Uraddaalke bade, Bhatt Ki Chutkani, Sisunak Ka Saag, Bal mithai, Jhagorekikheer are the most common in Kumaon region. In the present study 42% of the respondents were found to consume Kumauni food frequently keeping in mind the nutritive value of the food. 67% of the respondents consider Kumauni cuisine as one of the nutritious food which should be fed to the children in view of their health benefits. Kumauni food is rich in nutritive value thus it also helps to maintain health. According to the survey none of the respondents were found to suffer from kidney or liver damage and only 8% of the respondents were found to suffer from problems like night blindness and obesity. This concludes that there is prominent role of cuisine as cultural heritage in Uttarakhand. During the duration of the stay the tourists find that the availability of local food in local food joints was limited. The same time local community needs to be involved in such process. Awareness in concern to the Kumauni food is required so that it should be accepted as a nutritious and healthy Cuisine beyond the local region.

Key words: Nutritive value, Uttarakhand Cuisine, Kumauni food.

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Introduction:-

Traditional food system is important part of traditional knowledge. "Traditional food system" contains all foods that come from local natural resources and are culturally accepted within a culture. Additionally, sociocultural definitions, methods of acquisition processing, composition and nutritional implications for the people who use the food are also the main part. "Indigenous people" attribute to a cultural group within an ecological region that has established a strong subsistence base from the available natural resources. Whereas, "indigenous peoples" refers to peoples belongs to different cultural groups. Food system linked with indigenous knowledge of traditional foods and extends to beliefs and prosperity of Indigenous people Nutrition based traditional information is base for traditional food system and it helps to create healthy community. Traditional food and crops are also contributing to diversified diet, which is directly related to consumption of nutritious food. Some country like Vietnam (45 per cent), Japan (42 per cent) and China (80 per cent) has the very high consumption of traditional and wild plants. Consumption of wild and tradition food increases only, when staple food storage decreases. Around 1 billion population of world, depend on wild and traditional plants for food. India has good amount of wild and tradition food plants. It has been seen mostly in developing countries, billions of people consumed traditional wild edible plants as food because these are affordable and wildly grown.

Especially rural and poor communities' area is the biggest consumer of local edible plants. Wild edible plants are referred as emergency food supply for the local because these are good food during different disaster like drought and famine. In many developing countries, people who have good purchasing power, demand non-indigenous and exotic food crops. In market pressure, mostly famers must cultivate according demand. These expensive and exotic food crops need certified seed, fertilizers, and pesticides. But in age of climate change and pressure of large population on food crops, world need an alternative food crops, which should have the potential to fulfill demand of healthy nutrition along with should have the capacity to tolerant the climatic variability in coming future Kumaon region has been developed one of unique systems, this region is rich in indigenous traditional knowledge. In this region total 160 plant species which classified into 117 genera and comes under 57 different families have been identified. Different landraces, varieties and wild plants are being cultivated at a large number. With different types of altitude, topography, climate (alpine to subtropical), watersheds valleys, soil types, rivers and forest resources, Kumaon region is appropriate for the growth of these traditional food plants. The area under traditional crops is decreasing but these crops have their socio-economic and religious importance which makes them still in use and practices in rural area of Kumaon.

Nutritive value of ingredients used in preparation of kumaoni food

Table No-1 Nutritive Value Of Ragi And Its Health Impacts Finger millet is considered one of the most nutritious cereals. Finger millet contains about

Nutrients	Percentage (%)
Protein	6-8
Carbohydrates	65-75
Dietary Fibres	15-20
Mineral	2.5-3.5
Calcium	344mg
Potassium	408mg

The cereal has low fat content (1.3%) and contains mainly unsaturated fat. 100 grams of Finger millet has roughly on an average of 336 KCal of energy in them.

However, the millet also contains phytates (0.48%), polyphenols, tannins (0.61%), trypsin inhibitory factors, and dietary fibre, which were once considered as "anti-nutrients" due to their metal chelating and enzyme inhibition activities (Thompson 1993) but nowadays they are termed as nutraceuticals.

Being non-glutinous, finger millet is safe for people suffering from gluten allergy and celiac disease. It is non-acid forming, and hence easy to digest. Finger millet is rich in amino acids (Tryptophan, Threonine, Valine, Isoleucine and Methionine).

Health benefits of finger millet (ragi)

- Finger millet is an excellent source of natural calcium which helps in strengthening bones for growing children and aging people. Regular consumption of finger millet is good for bone

health and keeps diseases such as osteoporosis at bay and could reduce risk of fracture.

- It is now established that phytates, polyphenols and tannins can contribute to antioxidant activity of the millet foods, which is an important factor in health, aging and metabolic diseases.
- Finger millet's photochemical help in slowing digestion process. This helps in controlling blood sugar level in condition of diabetes. It has been found that finger millet based diet helps diabetics as it contains higher fibre than rice and wheat. Also, various studies found that diet based on whole finger millet has lower glycaemic response i.e. lower ability to increase blood sugar level. This is due to presence of factors in finger millet flour which lower digestibility and absorption of starch.

- Because of its high nutritional content finger millet flour is recommended as a weaning food especially in the southern parts of India.
- Finger millet is a very good source of natural Iron and its consumption helps in recovery of Anaemia. The Ragi based foods are highly suited for expectant mothers and elderly due to their high calcium and iron content.
- Green Ragi (finger millet) is recommended for conditions of blood pressure, liver disorders, and asthma and heart weakness. Green Ragi is also recommended to lactating mothers in condition of lack of milk production.
- If consumed regularly, finger millet could help in keeping malnutrition, degenerative diseases and premature aging at bay.

Nutritive value of soybean and its health impact

Table No-2 Nutrition Facts: Soybeans (cooked, boiled) - 100 grams

Nutrients	Amount
Protein	16.6g
Carbohydrates	9.9g
Sugar	3g
Fibre	9g
Fat	9g
Saturated	1.3g
Monosaturated	1.98g
Polyunsaturated	5.07g
Water	63%
Omega-3	0.6g
Omega-6	4.47g

Overall Nutrient Benefits

According to a recent research analysis, U.S. adults would increase their intake of folate, vitamin K, calcium, magnesium, iron and fibre if they replaced their meat and dairy intake with soybean. Since legumes like soybeans are often overshadowed by vegetables and fruits in terms of nutrient richness, we sometimes forget just how beneficial legumes like soybeans can be. Soybeans are also an important source of the vitamins and minerals like copper, manganese, molybdenum, phosphorus, potassium B complex vitamin and omega-3 fatty acids (in the form of alpha-linolenic acid). Replacing meat and dairy with soy would also lower total cholesterol intake by about 125 milligrams per day and saturated fat by about 2.4 grams per day. These nutritional changes, in turn, would lower risk of several chronic diseases, including cardiovascular diseases.

Health benefits of soybean Soy foods have become more familiar to consume worldwide and have become a popular choice of many health conscious valued for their Versatility, Taste,

Nutritional Content, Environmental Advantages and Health Benefits. Soy is used for High Cholesterol, High Blood Pressure & Preventing Diseases of the Heart & Blood Vessels. It is also used for type 2 Diabetes, Asthma, Lung Function, all type of Cancers (Lung Cancer, Endometrial Cancer, Prostate Cancer & Thyroid Cancer) as well as Preventing Weak Bone (Osteoporosis) slowing the Progression Of Kidney Diseases. Other use includes treating Constipation and Diarrhea, as well as Decreasing Protein in the Urine of people with Kidney Disease, Improving Memory and Treating Muscle Soreness caused by exercise. Women use soy For Breast Pain, Preventing Breast Cancer, Preventing Hot Flashes for Breast Cancer, Menopausal Symptoms and Premenstrual Soy foods are rich source of high quality protein. Soy provide the same quality protein as meat, milk and eggs. Often with less saturated fat & bad cholesterol. When chose in place of animal based proteins, soy offers other health advantages as well.

Objective and Research Question

The objective of the study was to analyze the traditional Kumauni food, known for its medicinal and nutritional value. To create awareness as these traditional foods were not been able to hit the popularity charts due to lack of awareness and failure of successive government to promote it sine the formation of a separate state of Uttarakhand about 15 year ago. Although the state government has declared the Kumauni food as RajyaBhig (state food).it is yet to pass a government order (Go) in this regard. The food of Kumaon is not spicy but full of diverse flavors and colors and is easy to prepare. The region is known for its mixed food culture with rice as a staple food. A study was planned with the find out the special features of Kumauni cuisine and its importance in growth of domestic tourism and it's importance in human die.

In order to find out the special features of Kumauni cuisine and it's importance in growth of domestic tourism a study was planned with the following objective in mind.

1. To the find out of special features of Kumauni cuisine.
2. To analyze of importance a Kumauni cuisine in human diet.
3. To analyze the importance of Kumauni Food
4. To study the nutritive value and Health benefits of Kumauni food

5. Comparative Analysis between Kumauni food and other cuisine

The scope of Study

Kumauni origins and out of curiosity I decided to research it online. Predictably, the little I came across about the cuisine online read too mechanical to hold my interest, so I turned to another trusted source – my parents. They were more than delighted to see their son finally become interested in her culinary heritage; especially my father who has spent a larger part of his youth in Kumauni villages. Garhwal and Kumauni owes its popularity because it features the ‘Chaar-dhaam’ of the sacred Hindu pilgrimage and hence is known as ‘Devbhoomi’ or God’s Land. The food of the region is simple and earthy in presentation, but heavenly in taste. Given the harsh and hilly terrain, Garhwal is love their meat and it occupies a place of pride in any menu. During a village temple’s inauguration, all locals are invited, even if they stay outside the state or the country, and more often than not, they make it a point to pay a visit. At the poojan, a goat is sacrificed in honour of the goddess and the raw uncooked meat is distributed to all the families as prasad. The head of the goat, considered to be the most important part of the body, is given to the Brahmin’s family as a mark of respect.

Review of Literature

Resource Persons and Year of Publication	Views Regarding role of local food as Destination Attraction
(Smith and Krannich ,(1998); Verbole, (2000); Andriotis (2001); Keller, (2002)	“Cultural heritage can be seen as contributor to the local community by improving the standard of living, providing employment opportunity, providing investment for development of infracture and as a mean of financial and social development
Mishra and Gautam, 2012	“ Cultural heritage is travelling to experience the places and activity that authentically represents the people of past and present”
(Gautam and Upadhyay, 2012)	“The quality of cultural heritage and its presentation is key factor of tourism:
James Hume, published in 1860, Long, (1998, p.195).	The use of Phaanu is also mentioned in a book <i>“Rambles in Himalayas”</i> Food is a significant means to penetrate into another culture as it allows an individual to experience the ‘Other’ on a sensory level, and not just an intellectual.
Hashimoto &Telfer (2006)	Identity linked to food for destination branding strategy in Canada. Area of focus is national identity linked to food and destination branding
Okumus Et Al (2007)	Examine the use of food in destination promotion materials. Area of focus is food image and destination promotion strategy in Hong Kong & Turkey)
Amira (2009)	Identify opportunities for creating linkages between local food and tourism through examining current Maldives tourism print and e-marketing materials. Area of focus is destination marketing and local food tourism in Maldives.
Zhang (2009)	Analyze the role of special events in improving local food as a tourism attraction. Area of focus is Culinary events and destination marketing in Macau.
Lin Et Al. (2011)	Explore dimensions and components of food images exposed in destination

	promotion materials. Area of focus is food image and destination marketing in Taiwan.
Henderson Et Al. (2012)	Measure the reputation and contribution of the hawkers' food tourism in Singapore. Area of Focus is Destination attraction and hawkers' food tourism in Singapore.
De Lera (2012)	Strengthen the image of gastronomy destination through enhancing the experience for international visitors. Area of focus is Destination image and gastronomy tourism in Spain.
Hong& Tsai (2012)	Evaluate governmental policy and strategy for promoting culinary tourism. Area of Focus is Destination marketing and culinary tourism in Asia Pacific.
Lee (2012)	Evaluate strategies of promoting Korean cuisine images to the international market. Area of Focus is Culinary tourism and destination branding in South Korea

Research Methodology

Research process

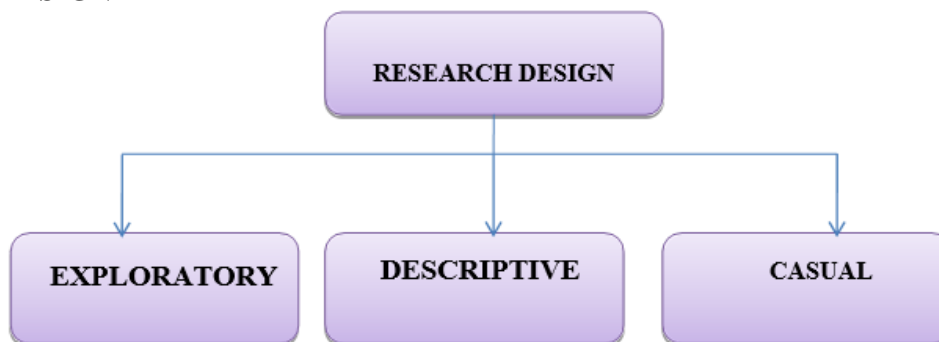
Research exercise may take many forms but systematic enquiry is a feature common to all such forms. Being a systematic enquiry, it requires careful planning of the orderly investigation process.

Stages in the research process

In planning and designing a specific research project, it is necessary to anticipate all the steps that must be undertaken if the project is to be successful in collecting valid and reliable information.

Research design is classified as follows

RESEARCH DESIGN



Descriptive Research Design:

It includes surveys and fact finding enquiries of different kinds. It is a fact-finding investigation with interpretation. It is the simplest type of research, and is more specific than an exploratory study, as it focuses on particular aspects of the problem being studied, so research design used for this project was descriptive research design.

Descriptive research method was the best method applicable to the existing problem mentioned in this report.

Sampling

An integral component of a research design is a sampling plan. Specifically, it addresses three questions:

- 1) Whom to survey (the sample unit)?
- 2) How many to survey (the sample size)?
- 3) How to select them (the sampling procedure)?

Making the entire universe will be impossible on the account of limitation of time and money. Hence sampling becomes inevitable. A sample is only a portion of the universe of population.

Sampling Unit

A decision has to be taken concerning a sample unit before selecting a sample. Sample unit may be geographical one such as State, District and Village etc. The researcher will have to decide one or more units that has to be selected for his study.

Sampling Methods

Probability sampling is known as random sampling or chance sampling. Under this sampling design every item of the universe has equal chance or probability.

- Simple random sampling
- Systematic sampling
- Stratified sampling

- Cluster and Area sampling
- Sequential sampling
- Multi-stage sampling

Sample Testing of Recipes

- Recipe received from various sources will be summarized in expert panel and will be tested in AIHM Culinary Labs for formulation of standard recipe card.
- Recipe card will also include the authentic color of the dish, suitable geographical climate and area for growth of main ingredients, medicinal values if any.
- Food casting will be done for every dish and suggestive information on application of serving dishes in various culinary sectors

Secondary data:

It means data that are already available i.e., they refer to the data which have already been collected and analyzed by someone else. When the researcher utilizes secondary data, then he has to look into various sources from where he can obtain them. In case if he is certainly not confronted with the problems that are usually associated with the collection of original data. Secondary data may either be published data or unpublished data. In current study it can be obtained from following ways.

- (a) Responses from literature review
- (b) Various publications of the central, state and local governments with reference to regional cuisine and its development.
- (c) Various publications of foreign governments or of international bodies and their subsidiary organizations which focus more on regional food
- (d) Technical and trade journals issued by recognized bodies
- (e) Books, magazines and newspapers article on cuisine and related literature
- (f) Reports and publications of various associations connected with hospitality industry.
- (g) Reports prepared by research Scholars, universities, economists, etc. in field of hospitality
- (h) Public records and statistics, historical documents, and other sources of published information on cuisine and development.

Researchers must ensure that data collected from various sources must be reliable in terms of who is collecting data, sources, methods, time bound, biasness, data accuracy etc. The data received must be suitable to fit for the study. Adequacy of

data can't be neglected. Collect that much of data which can give all the answers of all our research questions.

Data Analysis & Findings

The food consumption pattern and dietary habits of individuals/families/communities vary according to age groups, natural resources, socio-economic factors, regional customs and tradition. The consumption pattern of different foods of any population group over the past several years gives valuable information, which is quite useful to know the food habits of people as well as changes occurring in dietary habits over the years. There is a consistent relationship between unhealthy diet and the emergence of chronic non-infectious diseases. Dietary history of a region is useful to know (1) meal patterns, (2) dietary habits and (3) people food preferences and avoidances during various physiological conditions and the associated cultural constraints which affect food intake. The present study was therefore planned to study the changes in food consumption pattern of the people in Kumaon region of Uttarakhand in different decades. The changes occurred in different physiological state was also recorded. Diet pattern and occurrence of age related diseases was recorded in order to relate time trends in food consumption with time trends in occurrence of diseases in population of Uttarakhand.

Results of the study are presented below under following heads:

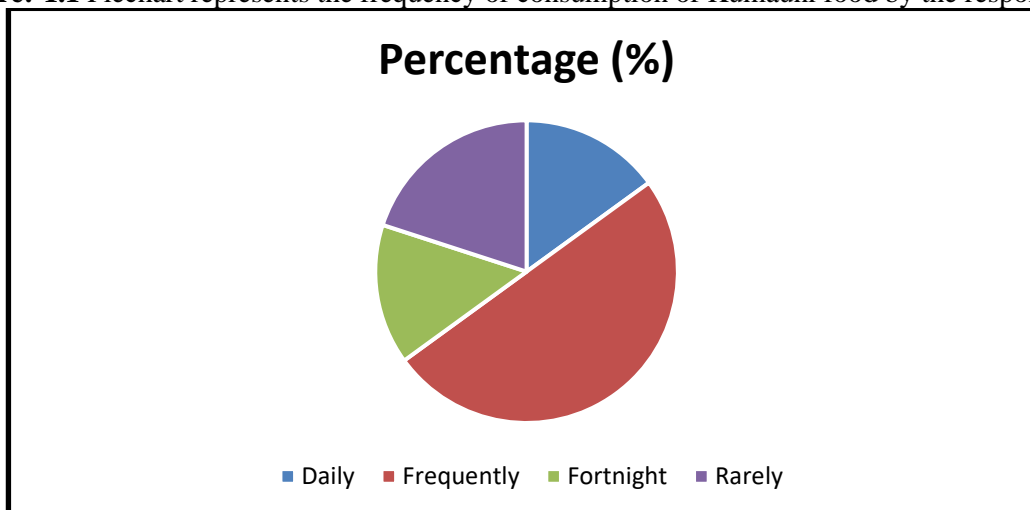
Frequency of consumption of Kumauni food by the Respondents

In the present study the frequency of consumption of Kumauni food of all the respondents was recorded. Respondents were from different age groups with different occupations from Kumaon Region. Table 4.1 reveals that the frequency of consumption of Kumauni Food on Daily basis among the respondents was 15%, Percentage of consumption of Kumauni Food frequently among the respondents was 50 %. Frequency of consumption of Kumauni Food on fortnight basis among the respondents was 15% and frequency of consumption of Kumauni Food rarely among the respondents was only 20%. Among the respondents the Kumauni food is consumed fortnight as it has the highest percentage; Respondents even prefer to consume Kumauni food on daily basis.

Table 3: shows the Frequency of consumption of Kumauni Food by the Respondents

Frequency of consumption of Kumauni Food	Percentage (%)
Daily	15
Frequently	50
Fortnight	15
Rarely	20

Figure:-1.1 Piechart represents the frequency of consumption of Kumauni food by the respondents.



Frequency of consumption of Kumauni food by the respondents

1.1: Analysis of Taste and Nutrition of Kumauni Food

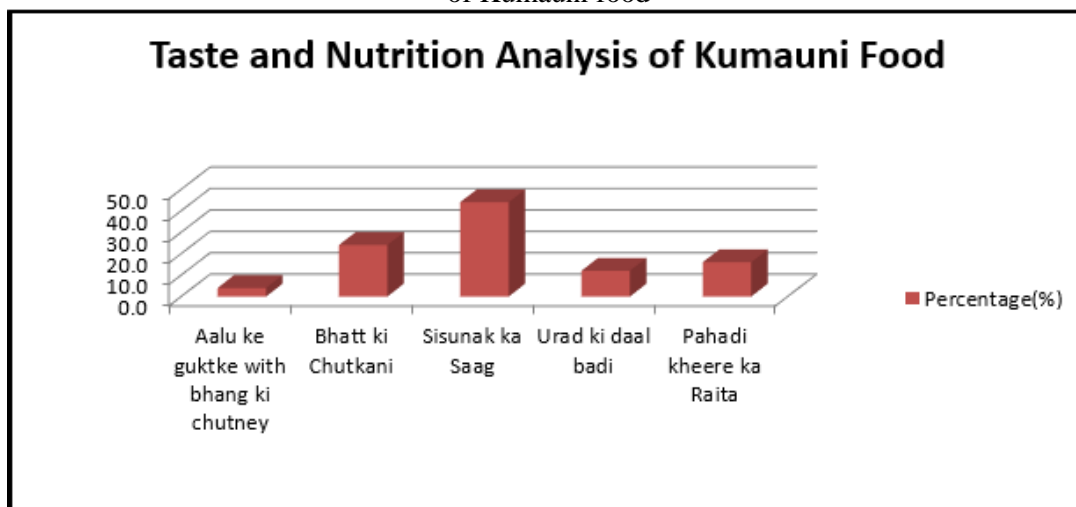
Analysis of the most nutritious food in the Kumauni cuisine was done. According to the respondents the nutrition analysis of Kumauni food was done and they were asked about the most nutritious Kumauni food considering the nutritive value of Kumauni cuisine. Table 3 reveals that the importance of Kumauni Food and the preference of Kumauni food on the basis of the nutritive value, According to this study the respondents preferred to consume sisunaksaag, the percentage of the preference was 44% the highest percentage among all the Kumauni food. In Kumaon region green leafy vegetable was commonly used and 61% population of 35-55 age groups were consuming it during 1960 -70but its routinely consumption progressively decreased to 28% population after1990. During 1960 -70, 2- 3

days in a week and weekly consumption was among 27% and 7% population respectively which increased to 42% and 21% population respectively after 2000. Fortnightly consumption was among 2- 6% population whereas monthly consumption was only among less than 3% population. In the present study of the respondents considered allukegutke with bhaangki chutney 4% and Pahadikheere ka Raita 16% as the most nutritious dish in Kumauni food, 12percent of the respondents considered Uraddaalbadi as one of the nutritious food. Soybean as less preferred to be consumed 24 % of the respondents’ preferred Bhatt kiChutkani as the nutritious food. Overall it was accepted by most of the respondents that Kumauni food is the nutritious food to be consumed consisting of the major and minor nutrients.

Table 4: Shows Taste and Nutrition Analysis of Kumauni Food

Nutrition Analysis of Kumauni Food	
Kumauni Food	Percentage (%)
Aalukeguktke with bhang ki chutney	4
Bhatt ki Chutkani	24
Sisunak ka Saag	44
Urakidaalbadi	12
Pahadikheere ka Raita	16

Figure: 1.2: The bar graph represents the analysis (on the basis of percentage) of the taste and nutritive value of Kumauni food



1.2: Analysis of frequency of consumption of Kumauni food by children

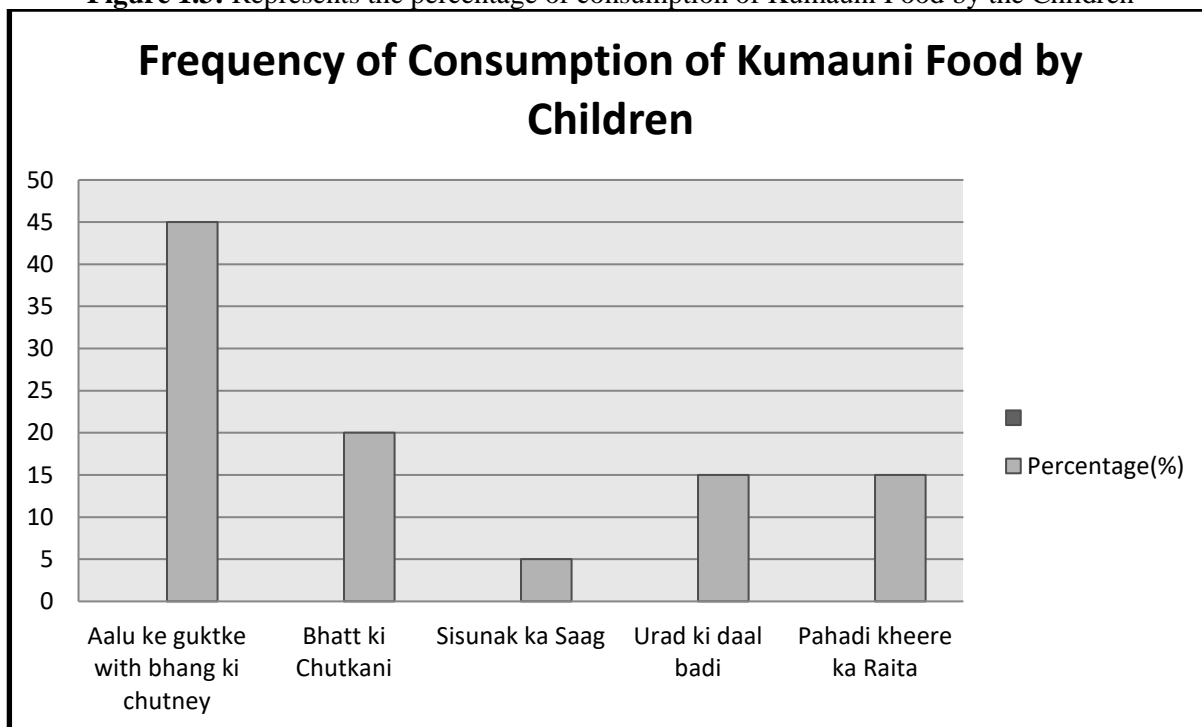
Kumauni food being the most nutritious and delicious food in the region is preferred and frequently consumed by the people which in turn keeps away population of the region free from different diseases. Analysis of the most nutritious food which is consumed by the children in the Kumauni cuisine was done. According to the respondents the nutrition analysis of Kumauni food was done and they were asked whether parents will prefer to feed the Kumauni food to their children considering the nutritive value of Kumauni food. Table 4.3 reveals that the importance of Kumauni Food and the preference of Kumauni food on the basis of the nutritive value, As the Kumauni food is rich in almost all the nutrients so is preferred to be consumed by the children According to this study the respondents preferred to feed sisunak ka saag , the percentage of the preference was 36% the highest percentage among all the Kumauni food. In Kumaon region green leafy vegetable was commonly used and 61% population of 35-55 age groups were

consuming it during 1960 -70but its routinely consumption progressively decreased to 28% population after1990. During 1960 -70, 2- 3 days in a week and weekly consumption was among 27% and 7% population respectively which increased to 42% and 21% population respectively after 2000. Fortnightly consumption was among 2- 6% population whereas monthly consumption was only among less than 3% population. In the present study of the respondents preferred 45% allukegutke with bhang ki chutney and 15% Pahadikheere ka Raita as the most nutritious dish in Kumauni food which can be a nutritious food for children, 15%of the respondents considered Uraddaalbadi as one of the nutritious food and liked Kumauni food. Soybean as less preferred to be consumed 20% of the respondents’ preferred Bhatt ki Chutkani as the Nutritious food. Overall it was accepted by most of the respondents that Kumauni food is the nutritious food to be consumed consisting of the major and minor nutrients.

Table 5: Shows the frequency of consumption of Kumauni food by the children

Frequency of feeding Kumauni to children	
kumauni food	Percentage (%)
Allukegutke with bhang ki chutney	45
Bhatt ki Chutkani	20
Sisunak ka Saag	5
Uradkidaal badi	15
Pahadikheere ka Raita	15

Figure 1.3: Represents the percentage of consumption of Kumauni Food by the Children



1.3. Analysis of Health condition of People consuming Kumauni Food

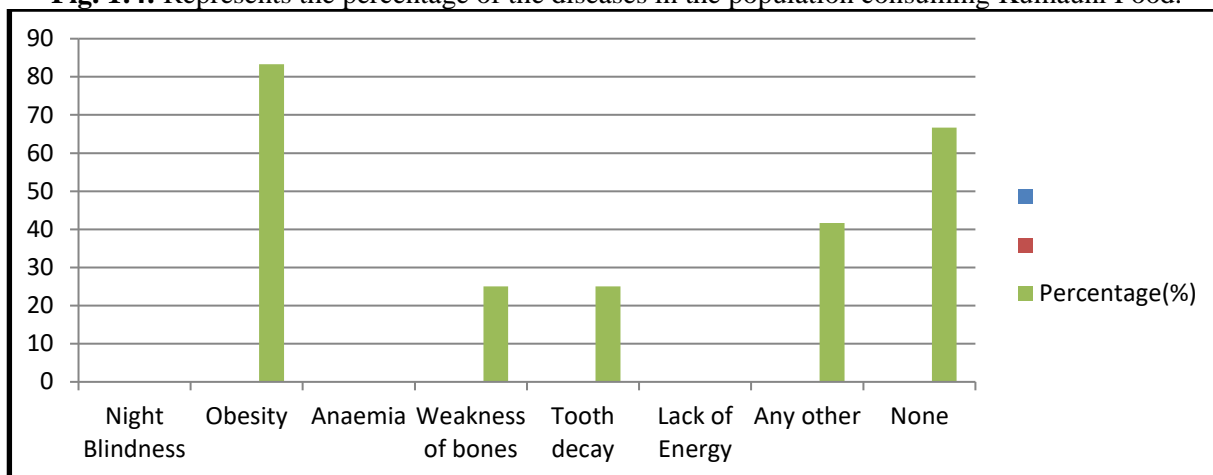
As the Kumauni food is rich in Nutrients health analysis was done in the present study and it was found that most prominent problem which persists in the people of Kumaon Region was Obesity and the percentage was found to be 83% as per the respondents of the study. Deficiency disorders

like weakness of bones, tooth decay and Anemia was found to be 25%, 25% and 0%. Only 25% people of the population were found to be suffering from kidney and liver damage. None of the respondent was found to suffer from problems related to lack of energy, and underweight.

Table 6: Represents the Analysis of health issues in people consuming Kumauni food

Health Problem in people consuming Kumauni Food	
Diseases	Percentage (%)
Night Blindness	0
Obesity	83
Anemia	0
Weakness of bones	25
Tooth decay	25
Lack of Energy	0
Any other	42
None	67
Under Weight	0
Kidney and liver damage	25

Fig. 1:4: Represents the percentage of the diseases in the population consuming Kumauni Food.



1:4: Comparison analysis between Kumauni Food and other food:

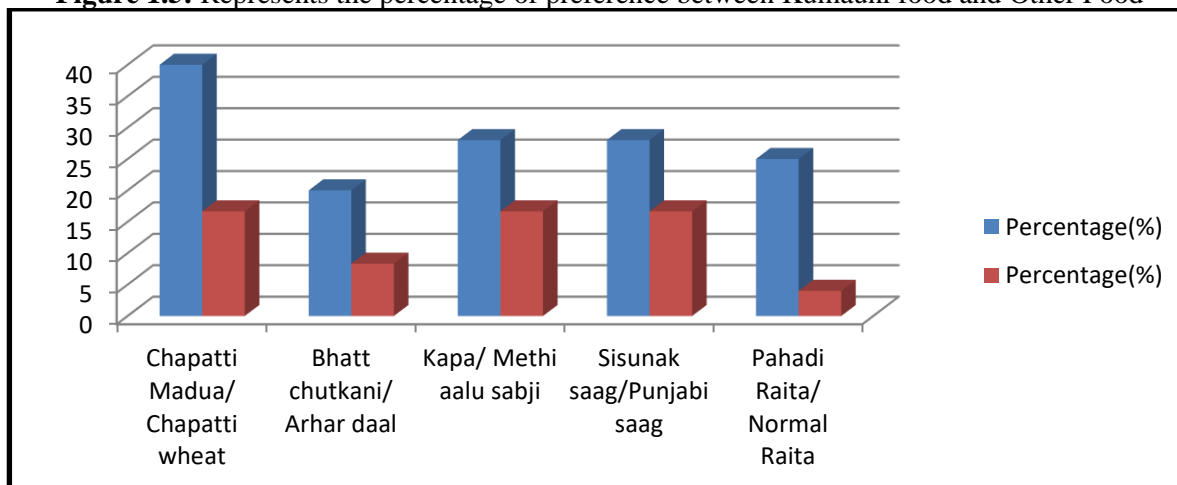
In the present study comparative analysis in Kumauni Food other Food was done on the basis of likes and dislikes. Table 4.5 reveals that 40% of the respondents preferred to consume chapatti made from finger millet and only 24 % of the respondents preferred to have chapatti made from wheat. However, almost 20 % respondents’ preferred Bhatt ki Chutkani over Arhardaal and

8% of the respondents liked Arhardaal over Bhatt ki Chutkani. Kapa(made from Spinach)28% andMethiaalusabji 17%was liked by the respondents that was around 28% of the population. Sisunaksaag was preferred over Punjabi saag in the region with 17% respectively.25% of the respondents preferred to consume PahadiRaita and only 4% of the respondents liked to consume traditional Raita.

Table 7: Represents the percentage of preference between Kumauni food and Other Food

Comparative study of Kumauni Food and other Food			
Kumauni Food	Percentage (%)	Other Food	Percentage (%)
Chapatti (Madua)	40	Chapatti(wheat)	24
Bhatt Chutkani	20	Arhardaal	8
Kapa(made from Spinach)	28	Methiaalusabji	17
Sisunaksaag	28	Punjabi saag	17
PahadiRaita	25	Normal Raita	4

Figure 1.5: Represents the percentage of preference between Kumauni food and Other Food



Finding of the Study

- The frequency of consumption of Kumauni food of all the respondents was recorded and it was observed that maximum number of respondents

preferred to eat Kumauni food frequently. i.e.50% of the total respondents.

- The frequency of consumption of Kumauni food by children was recorded and it was observed

that the maximum numbers of respondents preferred to feed Aalukegutke with bhang ki chutney (45%), Bhatt kiChutkani (20%) and Uraddaalbadi and Pahadikheere kaRaita were equally preferred.

- As per the respondents as they consider Kumauni food nutritious so they do not suffer from many deficiency diseases caused by deficiency of different nutrients. However, due to change in lifestyle obesity was the issue found in most of the respondents.
- Taste and nutrition analysis was done with the help of survey and it was found that most of the respondents of the region considered Kumauni food tasty as well as nutritious which helped them to be healthy.
- Comparative analysis between Kumauni Food and other food was done and it was observed that respondents preferred to have madua chapatti instead of wheat chapatti, respondent's also preferred Sisunakkasaag over Punjabi saag. Moreover, most of the respondents preferred to have Kumauni food instead of the regular food.

A standard recipe is one which has been tested, and produces the **quantity** and **quality** required for the particular establishment. Standard recipes allow for **CONSISTENCY** – the dish can be produced the same over and over, despite what staffs isroasted on that day. Standard recipes are compiled for:

1. **MENU ITEMS:** the dish served to the customer /client, eg: Alookigutke, Bhang ki Chutney, Bhatt, Maduaki Roti, JhangorakiKheer etc.
2. **MENU PRODUCTS:** is the basic item used in the production of a number of dishes eg basic Plate Presentation, garnishes, Uttarakhand herb mixtures, etc.

A standard recipe must be written for each item on the menu and each basic product used in the kitchen in order to establish a **FOOD COST** for the dishes.

Suggestions & Recommendations

- By promoting Kumauni Cuisine the government can create better cultural awareness among tourist.
- Hospitality management Institutes students could be the brand ambassador in cultural awareness among tourist travelling to different destination in Garhwal region of Uttarakhand.
- Garhwal Mandal Vikas Nigam (GMVN) may play important role involving local community to promote home stay concept, where tourist can enjoy the traditional culinary preparation.

- As CSR, hospitality management institutes should organize Food festival in different locations in celebration with government officials to create awareness among local people too who can be our future ambassador in promoting Kumauni Cuisine.
- Efforts need to be made to incorporate locally grown fruits, vegetables, herbs and spices, which are of great importance due to medicinal benefits, in day to day recipes.

Conclusion

“This Research Paper focusing an attempt to showcase how regional food of Uttarakhand food is cultural heritage can be a key factor in developing his economy of Uttarakhand as tourist spends huge percentage of their budget on consuming food and beverage. The cuisine is an eternal part of tourism. The food cannot be neglected as who so ever travelling will be consuming the same. It provides an opportunity to promote our hidden culinary treasure as cultural heritage of Uttarakhand. Regional food has tremendous health benefits and tourists are looking forward to try new food it gives a scope for developing culinary tourism in Uttarakhand, will definitely lead to economic development” The study indicates that majoring of respondents are accepting the local cuisine as it has higher health benefits and matching o their taste buds. There is very strong relationship between pricing Nutritious. Balance meal.

Organic food promotional activities by the government and various catering establishments Food knowledge for tourists. It concludes that there is prominent role of cuisine as cultural heritage in Uttarakhand. During the duration of the stay the tourists find that the availability of local food in local food joints was limited. The same time local community needs to be involved in such process. The public health practices are major concern it destination. Mandatory structured training program need to be complemented so that hesitation for tasting sue to lack of personal hygiene among food service operators can be minimized, During their spare time tourist wish o participate in culinary workshop and festivals to experience the cooking heritage of local community which has been transferred from to generation,

References / bibliography

1. Hume, James (1860), Rambles in Himalayas. Published, February 17, 2011. ISBN-13: 9781241106287,

2. Negi, J. S.Paryatakon KaSwarg Uttarakhand (1958)
3. Mishra and Gautam (2012), Heritage and Tourism, Bharti Publication, New Delhi, Page No. 246-263.
4. Lingwal and Linswal (2013), "Role of hospitality education in promoting tourism in Uttarakhand" Avahan: a Journal on Hospitality and Tourism, ISSN: 2347- 4556, Page No. 37-49.
5. Dixit and Tiwari (2014), "Awareness and acceptability of Awadhi Cuisine: A study of Academic Staff College, Lucknow" Avahan: a Journal on Hospitality and Tourism, ISSN: 2347- 4556, Volume II , Issue I, Page No. 133-145.
6. Garg and Karush (2013), "Competencies in hospitality management program to industry: Perceived and needed"- A case study of Uttarakhand" Avahan: a Journal on Hospitality and Tourism, ISSN : 2347 - 4556
7. Ramjeet and Gangotia (2013, "Evaluating the perceived cuisine image and its relationship with satisfaction and behavioural intention" Avahan: a Journal on Hospitality and Tourism, ISSN: 2347 - 4556, Page No. 1-12.
8. NegiVinod (2017) "Garhwali Cuisine:- Cultural heritage of Uttarakhand" ISBN : 978-93-85642-06-7,Page No:- 12-20.
9. Karush &Garg (2013) "Hospitality management institutes and Pahari cuisine: An unexplored combination in promoting tourism: a case study of the hill state of uttarakhand ,ISSN : 2347- 4556
- 10.Karush (2013) "Comparative study of multidimensional of innovative culinary development competency in Kumaon Region of Uttarakhand" Anukriti (An International Multidisciplinary Research Journal) Volume III, No. 7, Oct-Dec, 2013,,Page-No (37-40).