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# EXPLORING THE KNOWLEDGE AND ATTITUDES OF PEOPLE TOWARDS MILLETS ON FOOD PLATE

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## Abstract

Millets are a group of small-seeded grasses that have been cultivated for thousands of years in various parts of the world, including Africa, Asia, and Europe. Millets are known for their high nutritional value and are an important source of dietary fiber, minerals, and vitamins. However, the consumption of millets has declined over the years due to various reasons, such as urbanization, industrialization, and the availability of alternative food options. This research paper aims to review the knowledge, and attitudes of people towards millets on food plate, including their perception, knowledge, consumption, and factors influencing their attitudes.

Keeping above view in mind a survey was carried out on 120 people to know the knowledge and attitude regarding health benefits of millets and millet recipes. The result shows that almost everyone knows that the year is celebrated as IYOM (International year of Millets), but the knowledge about health benefits and recipes are not known to them, so, there is a need to organise recipe workshops and demonstrations at all levels; educational institutions, offices, anaganwadi, hospitals, clubs, societies, supermarkets , so that our traditional knowledge will be transfer to upcoming generation, even millets can be replace in school lunch program to improve health status of children .

**Keywords:** school feeding program; millets; workshops; health status

## Introduction

Millets (***Shree Anna***) are not new to us; it has been incorporated in our plate since Vedic era. The history of consumption of millet shows that it has been used since last 8000 years(IIMR). The health benefits of millets are described in Varaha Awatar of vishnu, where Varah ate foxtail millet to vanish the devils. It has been observed that in past 400 years the health benefits of millets are not transferred from one generation to next generation, as a result, it has been out from our plate. It has been considered as poor men`s diet, but the mission SDG ,gave us insight to rethink about our generations old traditional knowledge and reinstate it`s status among the population. In 2018 government of India suggested about the quality of millets as sustainable crop as a result, The UN declared year 2023 as International year of Millets. Millets are collective group of small seeded annual grasses that are grown as grain crops, primarily on marginal land in dry areas of temperate, sub-tropical and tropical regions. Millets are often called "Nutri-Cereals" due to their high nutritional content compared to commonly grown cereals like wheat, rice, or corn. They contribute to human and animal health, including that of mothers and their young. Millets encompass a diverse group of cereals including pearl, proso,



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foxtail, barnyard, little, kodo, brown top, finger, and Guinea millets as well as fonio, sorghum (or great millet) and teff. They were among the first plants to be domesticated and serve as a traditional staple crop for millions of farmers in Sub-Saharan Africa and Asia. Millets can grow on poor soils with little inputs, are resistant or tolerant to many crop diseases and pests and can survive adverse climatic conditions *(Deepika Baranwal and Rashmi Singh)*. The genetic diversity of millets offers opportunities for economic development through income generating activities in the food sector or in niche markets for specific professional applications (therapeutics, pharmaceuticals, specialty chemistry)(*FAO*). Millets are known to be a rich source of dietary fibre, minerals, and vitamins, and are an important component of a healthy and balanced diet. However, the consumption of millets has declined over the years due to various reasons, such as urbanization, industrialization, and the availability of alternative food options. Several studies based on its cultivation,variety,quality, types of millets, its nutritional value and value added products from ragi have been done by the researchers but study related to knowledge, attitude of people regarding millets on food plate have not seen so far, The present paper is an attempt to describe some basic information about attitudes of people towards millets, including their perception, knowledge, consumption, and factors influencing their attitudes as well as search avenues for its value addition and food uses.

**Methodology:**

A systematic literature review was conducted using various electronic databases, such as google forms. The survey was conducted on 120 sample using keywords such as "millet", "perception", "knowledge", "consumption", and "attitude". The survey was done amongst 120 respondents. A survey instrument (questionnaire schedule) was designed, which was reviewed by nutrition experts to examine the face validity, readability and clarity of wording and instructions. A schedule had two parts: demographic profile and food choices, knowledge, attitude towards millets. A total of 22 questions was finalised to get relevant information's.

Basic data of respondents like demographic profile, which includes-age, sex, education, and occupation were collected. The first figure shows that out of 120 respondents 92.8% were female and 7.2% respondents were male.

**Figure-No-1**

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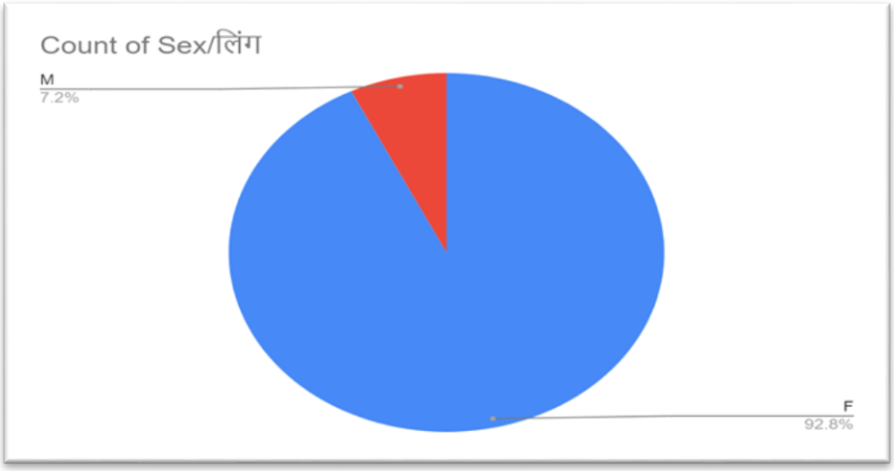


**Figure-No-2**

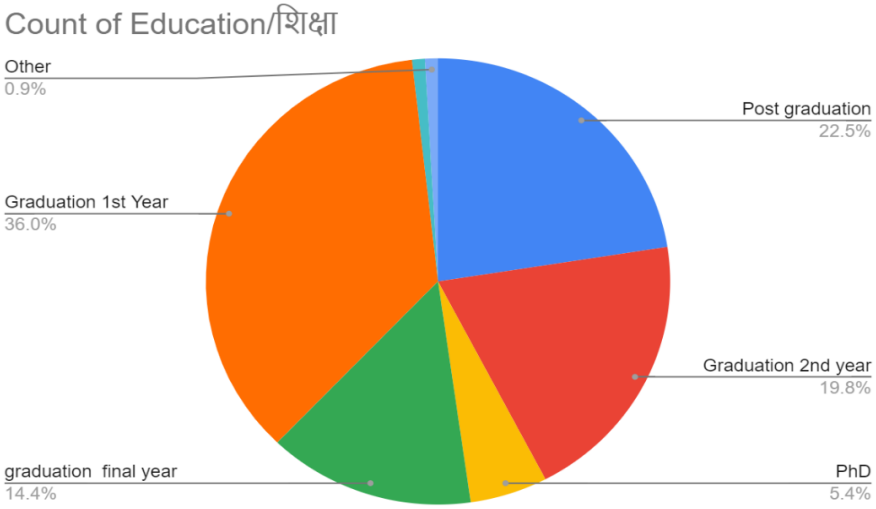


Figure no-2 represents the educational Qualification of respondents. Out of 120 respondents,36% belonged to Graduation 1st year 22.5% were from Postgraduates Segments,19.8% were from Graduation 2nd year ,14.4 % were from graduation final year,5.4% were Ph.D. Scholars and .9% were from other back grounds.

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**Figure no-3**

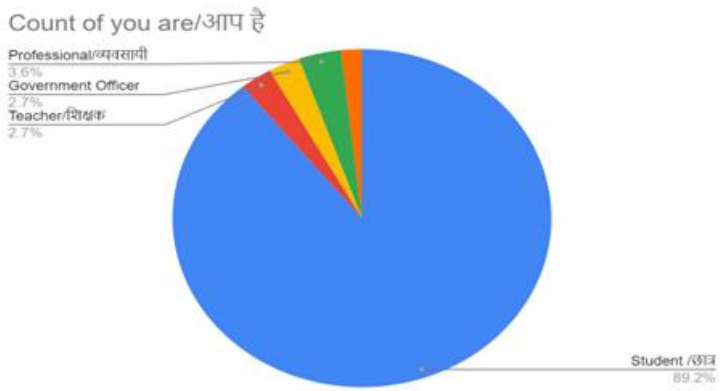
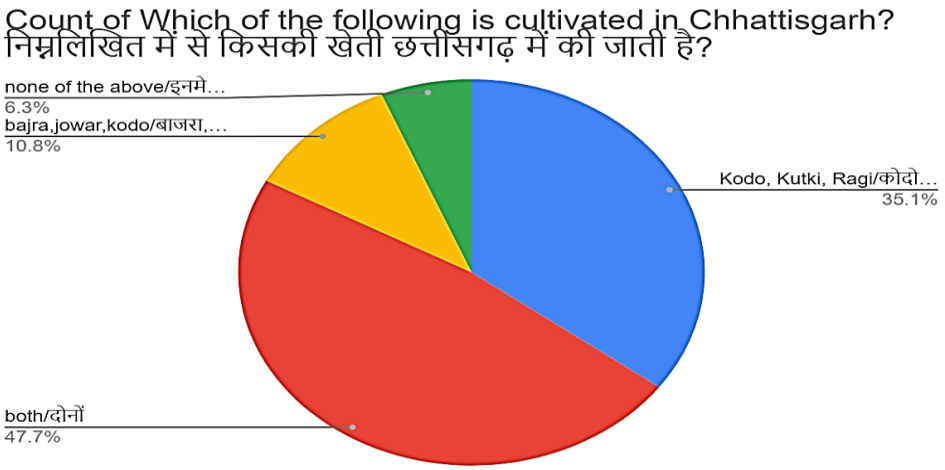



Figure no-3 represents the occupational status of the respondents. It was observed that out of 120, 89.2% were students, 3.6% were professionals, 2.7% were government officer and 2.7% were teachers.

**Figure No-4**




The second criteria includes data of knowledge of respondents about cultivation of millets in Chhattisgarh. Only 35.1% responded correct that kodo, kutki and ragi has been cultivated in Chhattisgarh, whereas 47.7% responded that all three Jowar , bajara and kodo has been cultivated in Chhattisgarh,10.8% responded that Bajra, jowar and kodo is cultivated in Chhattisgarh and 6.3% responded that none of the above is harvested in Chhattisgarh. It can be said that the respondent had less knowledge about cultivation of millets in Chhattisgarh, whereas Chhattisgarh is highest Kodo producing state and IGKV is providing kodo seeds to other states and other countries.

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**Figure no-5**

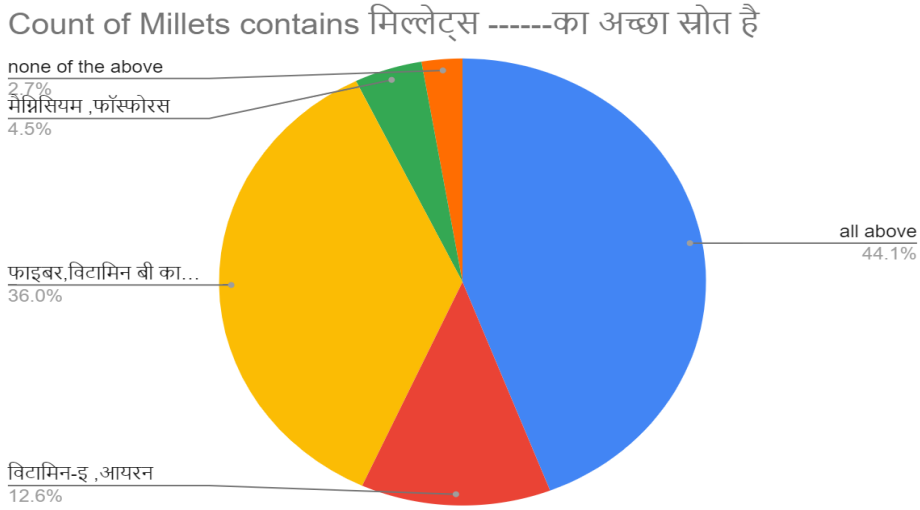


Figure no.-5 shows the knowledge of people regarding nutrients found in millets. 44.1% respondents answer that millets contain all the required minerals like magnesium, Phosphorus fibre, vitamin B ,vitamin E, Iron etc, 36% respondents think that millets are good source of fibre and vitamin B ,12.6% respondent agree is that millets are good source of vitamin E and iron 4.5% agreed that magnesium and phosphorus are found in millets and 2.7% respondents think that none of the minerals and vitamins found in millets. The result shows that less than 50% had proper knowledge about nutritional qualities of millets. Earlier researchers have said that millets are nutrient dense.

**Figure No-6**

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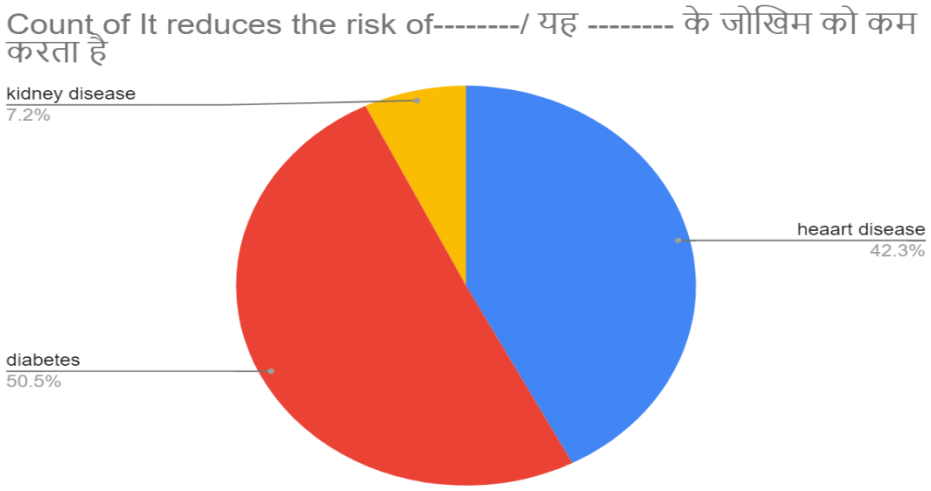


Figure no-6 shows the knowledge of health benefits and awareness about millets impact on checking the risk of lifestyle diseases among respondents. 50% respondents think that millets reduce the risk of diabetes 42.3% think that millets reduce the risk of heart disease and 7.2% responded that kidney diseases can be minimised with the use of millets. The result show that respondents are not fully aware off health benefits of millets. Deepika explained about the health benefits of millets in her work.

**Figure No-7**

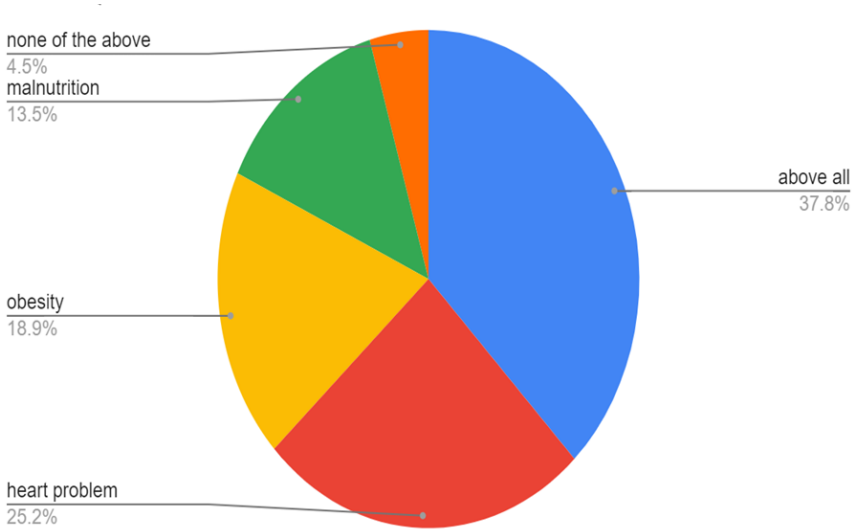


Figure no-7 represents the awareness of respondents about millets. While asking about the clinical benefits of millets. Out of 120 respondents 37.8% think that millets are beneficial in both obesity and heart problem, 25.2% think that millets are beneficial only in heart problem, 18.9% think that

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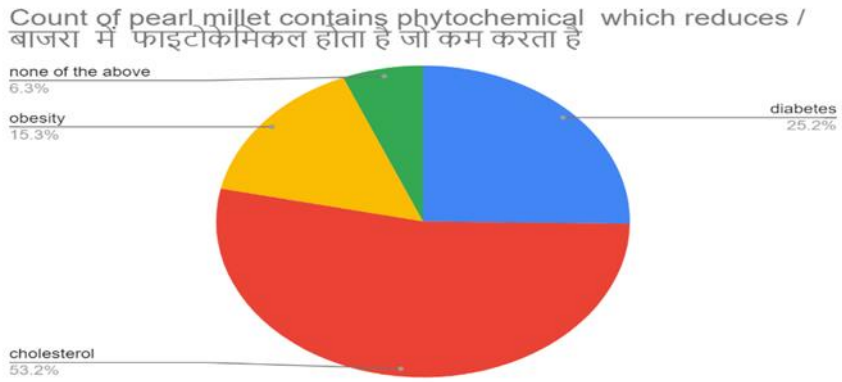
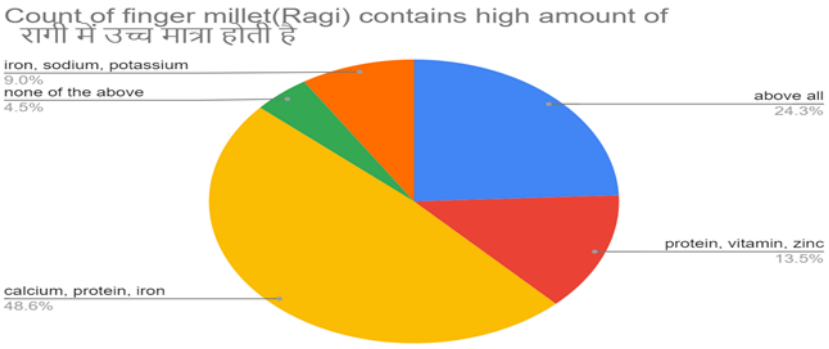
millets are beneficial in obesity, 13.5% think that millets are beneficial to fight malnutrition and 4.5% does not feel that millets are beneficial in any of the diseases.

**Figure No-8**




Next question of the survey was to know the knowledge of respondents regarding phytochemicals present in the pearl millet. Figure no-8 shows that 53.2% respondents think that phytochemicals reduce cholesterol ,25.2% think that it reduces the risk of diabetes ,15.3% think that it reduces the occurrence of obesity and 6.3% respondents doesn't agree to any of the clinical benefit of phytochemicals present in pearl millet.

**Figure No.-9**




Next question was to know the knowledge of respondents regarding presence of various minerals in finger millet. Figure no-9 shows the data of awareness , 48.6% responded that finger millet contains calcium protein and iron, 24.3% respondents think that finger millet contains all major minerals like iron sodium potassium protein vitamin zinc etc, 13.5% thing that finger millet contains only protein vitamin and zinc, 9.5% responded that finger millet

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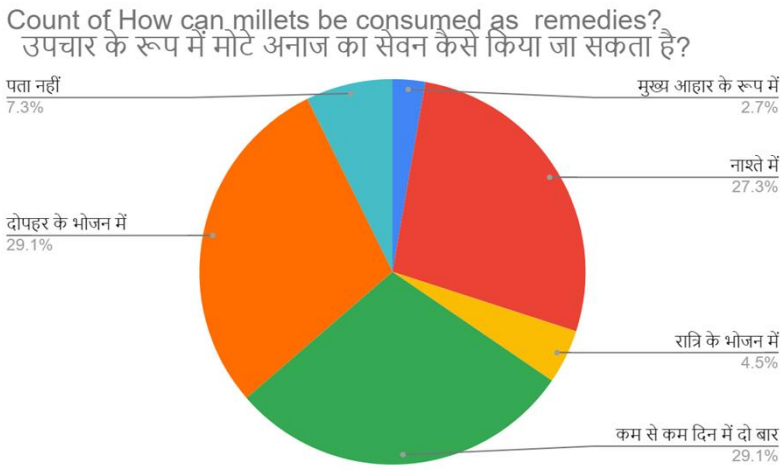
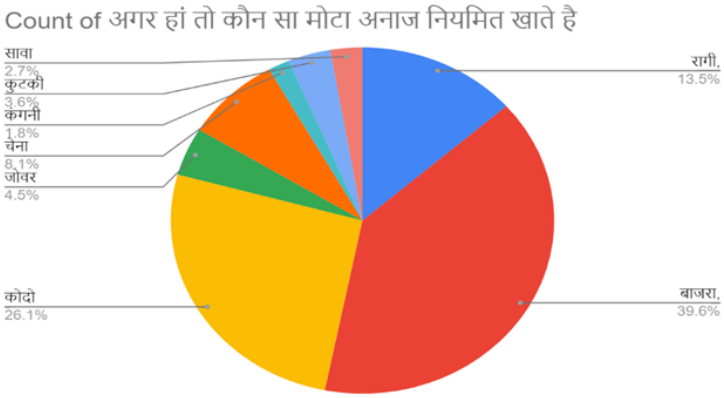
contains iron sodium and potassium and 4.5% responded that finger millet doesn't contain any noticeable quantity of minerals.

**Figure No.-10**




This question was to know that what should be the frequency of millet consumption to get therapeutic benefits. 29.1% responded suggest that it should be taken at least twice a day, 29% responded suggested that it should be taken at lunch time 27.3% agrees to consume it for breakfast 7.3% responded have no idea about frequency 4.3% respondents were taking it at dinner time and 2.7% things that it should be taken as staple diet.

**Figure No.-11**




The consumption pattern of millets in daily life of respondents was collected and presented in figure no-11. Out of 120 respondents, 39.6% respondents were eating Bajra on regular basis the second rank was secured by kodo which was 26.1%, ragi was the next millet which was eaten regularly the percentage was 13.5% next place was secured Chena , it is 8.1% 4.5% were eating Jowar 3.6% were eating Kutki 2.7% were eating Sava and the least consumed millet was kangni which was 1.8% .The variation in consumption pattern shows the cultural

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differences, Chhattisgarhi people were found consuming more kodo and ragi, whereas other cast people were consuming jowar, bajra then kodo. The micro millets like sawa and kuttu is found more consumed in Chhattisgarh region.

**Figure No.-12**

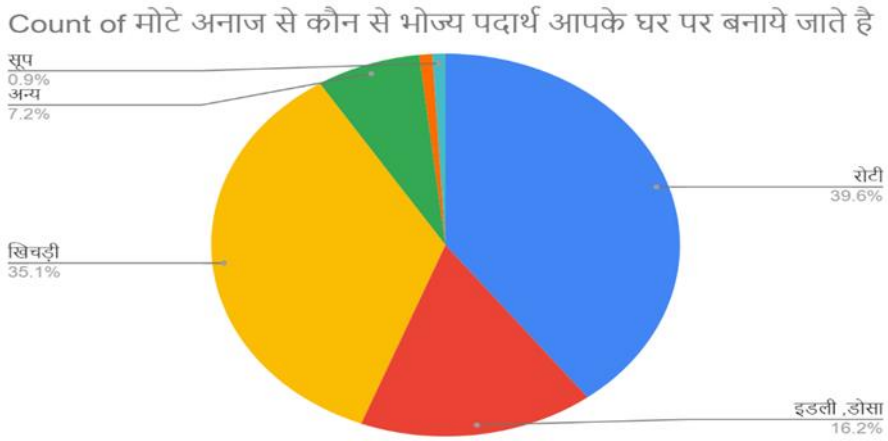
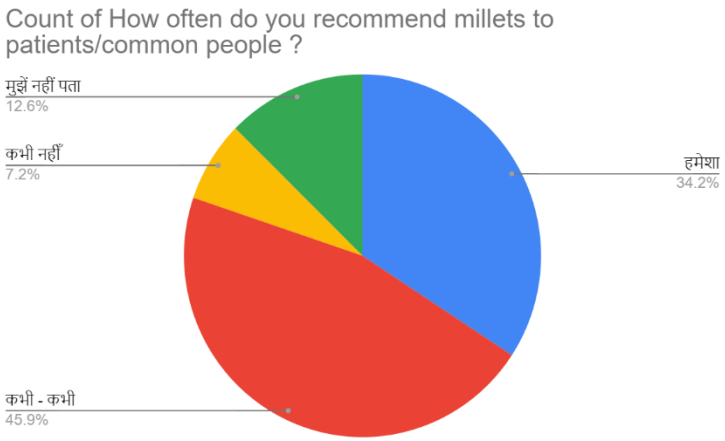



Figure no-12 shows the data based on recipes made by millets in the houses of respondents. 39.6% were eating rotis made of millets on regular basis, 3.5% respondents were eating khichdi, 16.2% responded were eating idli dosa, 7.2% were making other dishes and only.9% were making soup with the help of millets.

**Figure No.13**



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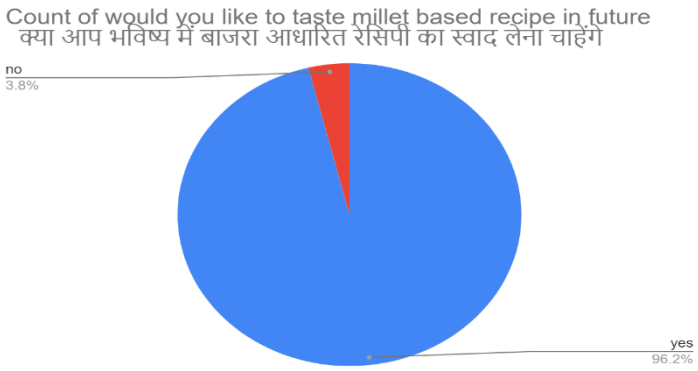
This question was to know the attitude of respondents towards suggesting millets to common people or to patients. 45.9% respondents sometimes recommend millets to patience , 34.2% responding always suggest usage of millets 12.6% have no idea and 7.2% never suggest consumption of millets for getting nutritional benefits.

In this question respondents were ask that whether they would like to taste millet based recipe in future. Figure no-14 shows that ,out of 120 respondent 96.2% were interested in testing New recipes developed by millets and 3.8% were not interested in millet based recipes.

**Figure No.14**




The last question asked about the millets was about open suggestion of respondents regarding incorporation of the same in there diet, most of the respondent found that taking millets as the staple food would help them in living a good healthy and sustainable life and it reduces lots of diseases and risk of Cancer as well. All the respondent found it beneficial sustainable and want to add for daily food.

**Figure No.15**

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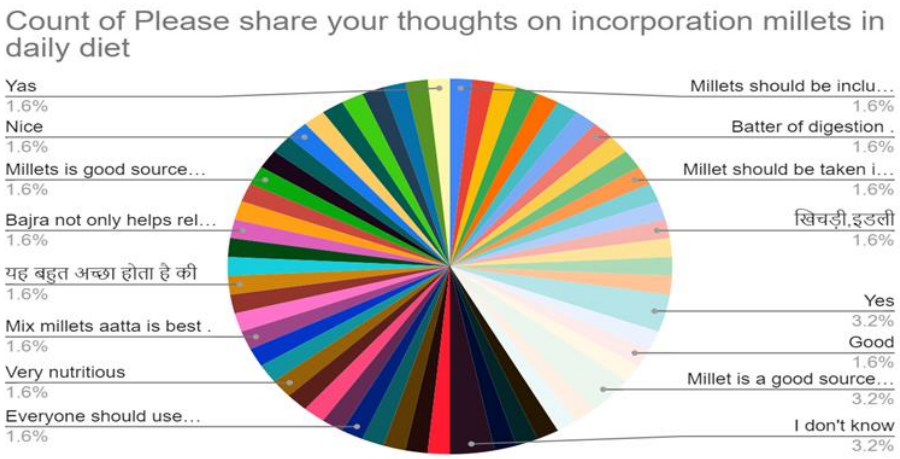


**Results**: The researcher found that the attitudes of people towards millets vary, depending on various factors, such as culture, age, gender, education, and socio-economic status. In general, millets are perceived as a poor man's food or a food of the past and are often associated with rural areas and traditional lifestyles. The result shows that everyone knows that the year is celebrated as IYOM (International year of Millets), but the knowledge about health benefits and recipes are not known to them. However, there is also a growing interest in millets among urban consumers, especially those who are health-conscious and environmentally aware. The review also found that the knowledge about millets is generally low among the public, and that there is a need for awareness-raising campaigns at all levels.

**Conclusion:**

The review concludes that the attitudes of people towards millets are complex and influenced by various factors. There is a need for awareness-raising campaigns to promote the nutritional benefits of millets, and to change the perception of millets as a food of the past. The promotion of millets as a health food and the development of value-added products can help increase the consumption of millets, especially in urban areas. Overall, there is a need for a multi-stakeholder approach to promote the consumption of millets and to ensure their sustainability in the future.

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