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## **Consumer Awareness and Consumption Pattern of Millets and Millet-Based Products in Raipur City, Chhattisgarh**

**Hulas Pathak, Kothuru Naga Madhu Kiran and A. K. Gauraha\***

### ABSTRACT

Millets are gaining prominence in recent years due to their nutritional value, gluten-free nature, adaptability, water efficiency, support to sustainable farming, economic potential for small-scale farmers, making them essential for health, environment, and livelihoods. This year has been declared as the “International Year of Millets” (2023) at the behest of Government of India. Many States like Odisha, Chhattisgarh, Andhra Pradesh etc. have launched Millet Missions to encourage millet cultivation, research, and consumption. In this background, this paper explores consumer awareness and consumption patterns of millets and millet-based products in Raipur city, Chhattisgarh. A survey was conducted among 150 participants to analyse their level of awareness, sources of awareness, reasons for consumption, consumption patterns, and factors influencing the consumption patterns of millets and millet-based products. Among the 150 respondents, only 31 per cent ( $n = 46$ ) reported frequent consumption of millets (once or more times a week). The study also revealed, a significant association between consumer awareness and the consumption patterns of millets and millet-based products ( $p < 0.001$ ), 57 per cent of respondents are moderately familiar with millets, while 23 per cent are very familiar, and 20 per cent are less familiar. Health benefits (35 per cent), gluten-free options (41 per cent), and cultural preferences (13 per cent) emerged as key drivers of millet consumption among frequent consumers. Furthermore, the study highlights the influence of demographic factors such as age, education level, family income, and occupation on millet consumption patterns. The study underscores the need to target low awareness segments, lower income groups, and younger age groups to promote millet consumption. Additionally, integrating millets into the Public Distribution System (PDS) and establishing millet cafes across all cities of Chhattisgarh and Odisha are recommended as effective strategies to increase millet consumption at the household and community levels. These findings enrich the current body of knowledge and offer valuable insights for policymakers, researchers, and stakeholders, guiding the creation of targeted initiatives aimed at fostering sustainable food systems within distinct demographic segments. Future research could focus on evaluating the effectiveness of targeted interventions, conducting sensory evaluations of millet-based products among different demographic groups, and assessing the socio-economic impact of millet promotion initiatives. By addressing these factors, one can effectively promote millet consumption, improve nutrition, and contribute to the overall well-being of the population.

### I

### INTRODUCTION

In recent years, there has been renewed interest in the consumption of millets and millet-based products due to their nutritional value, environmental sustainability, and potential health benefits. Millets, which are a diverse group of small-seeded grains, have been cultivated for centuries and have played a crucial role in global food systems. These grains are known for their resilience in harsh climates, making them ideal crops in regions with limited access to water or prone to climate variability. Unlike rice, which requires 1200 mm of water, millets only need 350 mm of water. They can be planted in intercropping or mixed cropping systems with pulses and oilseeds. Furthermore, millets offer a range of nutritional benefits, being rich in

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dietary fiber, protein, essential minerals, and antioxidants. In India, particularly in rural areas, millets have long been a staple in traditional diets. However, the process of modernisation, urbanisation, and globalisation of food systems has led to a decline in millet consumption. There are several reasons for this decline, including the influence of Western dietary trends, the proliferation of convenience and processed foods, and changing lifestyles. Millets were often considered "poor man's food" and were overshadowed by more prevalent grains like rice and wheat. However, millets have recently regained popularity and increased in importance for several reasons. Firstly, the focus has shifted to wholesome and nutrient-dense food options due to rising health and well-being concerns. Millets, with their rich nutritional profile, gluten-free status, and low glycaemic index, have become suitable replacements for individuals with special dietary needs, such as those with diabetes or gluten intolerance. Secondly, there is a growing interest in the sustainability and environmental impact of millet farming. Millets are considered climate-smart crops because they thrive in low-input farming methods, require minimal water, and have positive effects on soil health. As sustainability becomes a top priority, millets are being grown to support environmental stewardship, reduce greenhouse gas emissions, and promote biodiversity. Thirdly, the cultural and culinary heritage associated with millets has sparked a resurgence in their popularity. Millets have a rich cultural history in many places and communities, and efforts are now being made to preserve and promote these traditions through food production. This cultural reconnection has led to culinary innovation, with millet-based products appearing on grocery store shelves and restaurant menus. As more people become aware of the benefits of including millets in their diets, the demand for these ancient grains is expected to grow. Millets are economically significant in particular, to small farmers. Millets offer export potential, generate employment, diversify agricultural markets, and contribute to improved health outcomes and potential healthcare cost savings. Embracing and championing millets has the potential to stimulate economic growth, improve livelihoods, and make a significant contribution to India's pursuit of sustainable development goals, solidifying their role as a valuable asset to the nation's economy. Recognising the nutritional, economic and ecological advantages of millets, the Indian government has undertaken various initiatives to revive their cultivation and consumption. These efforts aim to enhance food security, promote sustainable agriculture, and address malnutrition-related challenges. Additionally, the United Nations has declared the year 2023 as the International Year of Millets, highlighting their significance in achieving sustainable development goals such as zero hunger, sustainable agriculture, and improved nutrition. This global recognition provides a unique opportunity to raise awareness about the nutritional value, climate resilience, and cultural importance of millets on a global scale. The Odisha Government initiated the Odisha Millet Mission (OMM) in 2017 to promote millets, particularly ragi, as a staple crop. The OMM has procured 3,23,000 quintals (32,300 MT) of millets from 41,286 farmers. Ragi distribution through the Public Distribution

System (PDS) reached over 50 lakh beneficiaries across 14 districts. Notably, per farmer household gross value of produce tripled, rising from Rs. 3957 to 12486 between 2018-19 and 2020-21. The introduction of Ragi laddu as a preschool snack and establishment of Millet Shakti Cafes further accentuate Odisha's millet promotion efforts. The state's achievements were acknowledged through the "Best Millet Promoting State" accolade by ICAR-IIMR and FAO's "Poshak Anaj Awards." Recognizing its success, a task force was established by the Government of India to learn from OMM's framework and potentially revise the National Sub Mission on millets. Additionally, the Chhattisgarh State Planning Commission has shown interest in replicating the Odisha Millet Mission model. In line with this, the Chhattisgarh government launched the Millet Mission in 2021 in collaboration with ICAR-IIMR for technical support. The government also declared a minimum support price (MSP) of Rs. 30/kg for kodo and little millets and Rs. 33.77/kg for ragi. The Millet Mission aims to further enhance the cultivation, consumption, and marketing of millets in the state. This initiative aligns with the growing recognition of millets' nutritional, environmental, and cultural value. Considering the Government of India's focus on millets, the declaration of the International Year of Millets, and the launch of the Millet Mission in Odisha and Chhattisgarh, it is imperative to examine the consumer awareness and consumption patterns of millets and millet-based products in the study area. This will help assess the impact of these initiatives and contribute to the overall understanding of millet promotion efforts.

The objectives of this study are: (i) To study the level and sources of consumer awareness regarding different millets and millet-based products and (ii) To examine the consumption patterns and factors influencing the consumption patterns of millets and millet-based products in Raipur city.

## II

### MATERIALS AND METHODS

The study aimed to investigate consumer awareness and consumption patterns of millets and millet-based products among residents of Raipur City, Chhattisgarh. A convenience sampling method was utilized, resulting in a sample size of 150 respondents. Data was collected through a structured questionnaire that included predefined questions related to demographics, consumption patterns, and consumer awareness. For data analysis, percentages and graphs were employed. Percentages were used to represent the distribution of demographic variables, such as age groups, gender, and income levels among the respondents. Graphs were used to visually depict consumption patterns and consumer awareness levels. Statistical test, namely the chi-square test of independence was conducted to examine the factors influencing consumption patterns. The chi-square test assessed the association between consumption pattern and independent variables. It is important to note that the study utilized a sample size of 150 respondents, which limits the generalizability of the findings. While it identified factors influencing consumption patterns, a quantitative

assessment would provide a clearer understanding of the strength and significance of these relationships.

### III

#### RESULTS AND DISCUSSION

##### 3.1 Demographic Distribution of Respondents

Table 1 presents the demographic characteristics of the respondents of the study consisting of 150 individuals. In terms of gender, 82 participants (54.67 per cent) are male, while 68 participants (45.33 per cent) are female. When examining the age distribution, 82 participants (54.67 per cent) fall within the 20-35 age group, followed by 50 participants (33.33 per cent) in the 35-50 age group, and 18 participants (12.00 per cent) aged over 50. Considering family income, 14.67 per cent of participants have an income below 20,000, 33.33 per cent fall within the 40,000-60,000 income range, and 32.67 per cent have an income between 20,000 and 40,000.

TABLE 1: DEMOGRAPHIC DISTRIBUTION OF RESPONDENTS

Demographic character (1)	Frequency (2)	Percentage (3)
Gender		
Male	82	54.67
Female	68	45.33
Total	150	100
Age		
20 - 35	82	54.67
35 - 50	50	33.33
> 50	18	12.00
Total	150	100
Family income		
<20000	22	14.67
40000-60000	50	33.33
20000-40000	49	32.67
>60000	29	19.33
Total	150	100
Education level		
Graduation	81	54.00
Post graduation / more	47	31.33
12th / less than 12th	22	14.67
Total	150	100
Occupation		
Private employee	52	34.67
Home maker	34	22.67
Govt employee	30	20.00
Business	19	12.67
Student	15	10.00
Total	150	100

Moreover, 19.33 per cent of the participants report an income above 60,000. In terms of education level, most participants (54 per cent) have a graduation degree, while 31.33 per cent possess a post-graduate degree or higher. Additionally, 14.67 per cent of participants have completed up to the 12th grade or have an education level below

12th grade. In terms of occupation, the largest category comprises private employees, accounting for 34.67 per cent of the participants. Homemakers constitute 22.67 per cent of the sample, while government employees make up 20.00 per cent. Those engaged in business activities represent 12.67 per cent of the participants, while students account for 10.00 per cent.

### 3.2 Level and Source of Awareness of Millets and Millet-Based Products:

Among the respondents, 57 per cent (n = 85) were "moderately familiar," 23 per cent (n = 35) were "very familiar," and 20 per cent (n = 30) were "less familiar" (Figure 1). The relatively low percentage of respondents (23.33 per cent) who were grouped as "very familiar" with millets highlights the need for intensified efforts to increase awareness and knowledge. These individuals, who have a higher level of familiarity, can serve as key influencers and advocates for millets within their social circles.

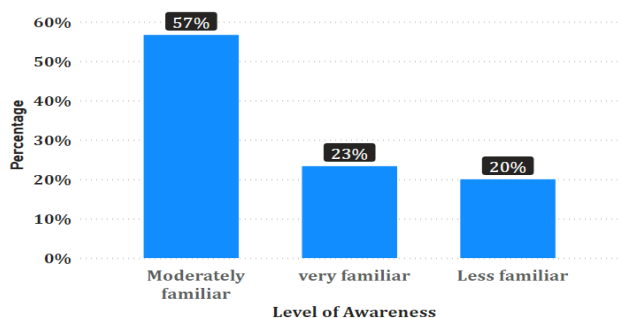


Figure 1. Level of Awareness of Millets and Millet-based Products

When the respondents were asked about the source of their awareness of millets, 27 per cent (n = 41) mentioned "social media," 22 per cent (n = 33) indicated "word of mouth," 19 per cent (n = 29) referred to "news media," 17 per cent (n = 26) cited "professional guidance/programs," and 14 per cent (n = 21) stated "personal research" (Figure 2).

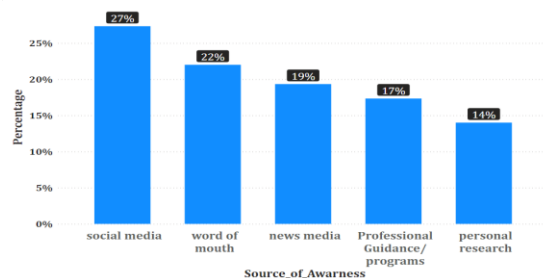


Figure 2. Source of Awareness of Millets and Millet-based Products

The results show that social media played a significant role in creating awareness about millets, with 27.33 per cent of respondents indicating it as their

source of information. This result was in line with the study by (Kane-Potaka *et al.*, 2021) where “social media” was the major source of awareness of millets and millet-based products.

3.3 Examination of the Consumption Pattern of Millets and Millet-Based Products:

The distribution of respondents based on consumption pattern is as follows: 31 per cent (n = 46) reported “frequent consumption (once or more times a week)”, 41 per cent (n = 62) reported “moderate consumption (once in 10 days or fortnight)”, and 28 per cent (n = 42) reported “rare consumption (not even once a month)” (Figure 3).

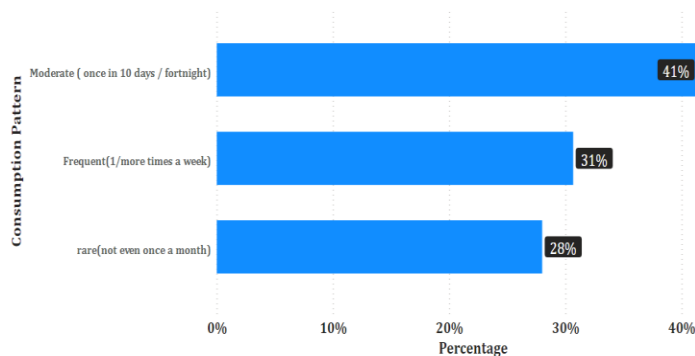


Figure 3. Consumption Pattern of Millets and Millet-based Products

3.4 Reasons for Consumption of Millets and Millet-Based Products:

Among the respondents, 29 per cent (n = 43) reported that they consumed millets due to “cultural preferences”, 22 per cent (n = 33) mentioned “health benefits (excluding gluten-free options)”, 17 per cent (n = 25) indicated taste as a “motivating factor”, 17 per cent (n = 25) consumed millets because they were “cooked in their homes”, and 16 per cent (n = 24) chose millets for their “gluten-free properties” (Figure 4)

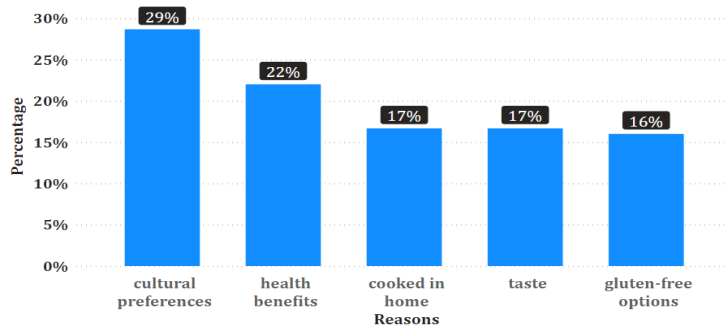


Figure 4. Reasons for Consumption of Millets and Millet-Based Products

### 3.5 Most Consumed Millet Among Respondents:

When asked about their most consumed millet by them 36 per cent ( $n = 54$ ) of respondents reported that they consumed “finger millet” the most. 28 per cent ( $n = 42$ ) of respondents reported that they consumed “pearl millet” the most. 21.33 per cent ( $n = 32$ ) of the said “Kodo-Kutki” interchangeably as the most consumed one by them. 14.67 per cent ( $n = 22$ ) of respondents said “foxtail millet” as the most consumed one. (Figure 5). This study was in line with Barratry and Rajapushpam (2018), where finger millet was the top choice for millet product consumption (70.92 per cent) among household consumers in Salem district, Tamil Nadu.

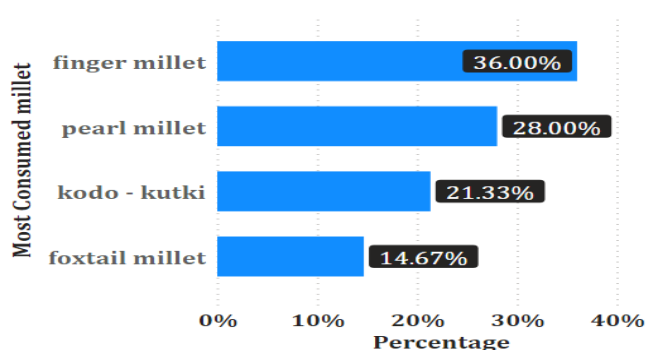


Figure 5. Most Consumed Millet by Respondents

### 3.6 Factors That Encourage More Consumption/Constraints of Lower Consumption:

When asked about the factors that encourage or constrain their consumption of millets, the survey revealed that among the respondents, 37.33 per cent ( $n = 56$ ) mentioned “lower prices” of millets as an encouraging factor, 35.33 per cent ( $n = 53$ ) cited “increased availability” of millets, and 27.33 per cent ( $n = 41$ ) highlighted the need for “more awareness” (Figure 6).

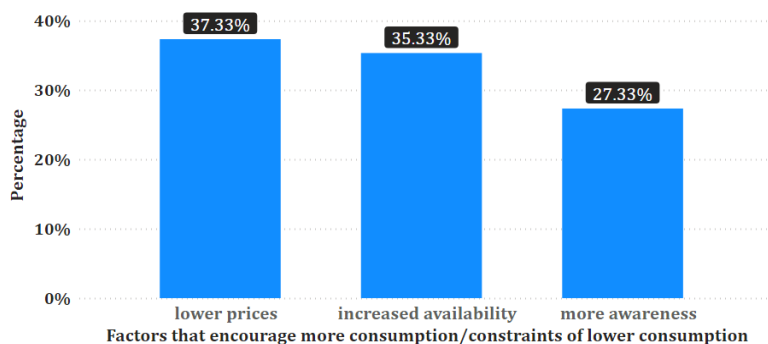


Figure 6. Factors that Encourage More Consumption/Constraints of Lower Consumption



3.7 Factors Influencing Consumption Pattern:

*Influence of Demographic Factors, Level and Source of Awareness, Reasons for Consumption, Most Consumed Millet, and Factors that Encourage More Consumption/Constraints of Lower Consumption on Consumption Pattern:*

Chi-square test of independence was performed to assess the influence of independent variables on the consumption pattern (Table 2).

Null hypothesis (H0): There is no association between the independent variable (x) and the consumption pattern (y). In other words, the independent variable (x) does not influence or have any relationship with the consumption pattern (y).

Alternative hypothesis (H1): There is a significant association between the independent variable (x) and the consumption pattern (y). This suggests that the independent variable (x) does influence or have a relationship with the consumption pattern (y).

TABLE 2: CHI-SQUARE TEST OF INDEPENDENCE

Factor	Chi square value	Df	Asymptotic significance (2-sided)	Hypothesis	Result
(1)	(2)	(3)	(4)	(5)	(6)
Gender	2.196 <sup>a</sup>	2	0.334	Accept h <sub>0</sub>	Gender does not have influence on consumption pattern
Education level	25.223 <sup>a</sup>	4	<0.001	Reject h <sub>0</sub>	Education level does have influence on consumption pattern
Family income	96.808 <sup>a</sup>	6	<0.001	Reject h <sub>0</sub>	Family income does have influence on consumption pattern
Occupation	60.273 <sup>a</sup>	8	<0.001	Reject h <sub>0</sub>	Occupation does have influence on consumption pattern
Reasons for consumption	73.942 <sup>a</sup>	8	<0.001	Reject h <sub>0</sub>	Various reasons of consumption have influence on consumption pattern
Level of awareness	149.812 <sup>a</sup>	4	<0.001	Reject h <sub>0</sub>	Level of awareness does have influence on consumption pattern
Source of awareness	64.819 <sup>a</sup>	8	<0.001	Reject h <sub>0</sub>	Source of awareness does have influence on consumption pattern
Most consumed millet	62.785 <sup>a</sup>	6	<0.001	Reject h <sub>0</sub>	Most consumed millet does have influence on consumption pattern
Factors that encourage consumption (or) constraints of lower consumption	30.359 <sup>a</sup>	4	<0.001	Reject h <sub>0</sub>	Factors that encourage consumption (or) constraints of lower consumption does have influence on consumption pattern
Age of Respondents	73.95	4	<0.001	Reject h <sub>0</sub>	Age of Respondents does have influence on consumption pattern

*(a) Gender vs Consumption Pattern*

From Table 3, it can be observed that there are no significant gender-based differences in millet consumption patterns. Both male and female respondents exhibited similar frequencies of millet consumption across all categories. This finding aligns with a study conducted by George *et al.* (2021), which also reported that gender does not influence the consumption pattern (frequency of consumption) of millets and millet-based products.

TABLE 3. GENDER VS CONSUMPTION PATTERN

Consumption Pattern (1)	Female (2)	Male (3)	Total (4)
Moderate (once in 10 days / fortnight)	29	33	62
Frequent(1/more times a week)	17	29	46
Rare(not even once a month)	22	20	42
Total	68	82	150

The lack of gender-based differences in millet consumption patterns implies that promoting millet-based diets and products may have equal potential to attract both male and female consumers.

*(b) Family Income Vs Consumption Pattern:*

From Table 4, the respondents with higher family incomes, particularly in the >60000 category, showed a higher frequency of consumption. Conversely, individuals with lower family incomes, particularly in the <20000 category, demonstrated a lower frequency of consumption.

TABLE 4. FAMILY INCOME VS CONSUMPTION PATTERN

Consumption Pattern (1)	<20000 (2)	20000-40000 (3)	40000-60000 (4)	>60000 (5)	Total (6)
Frequent(1/more times a week)	3	1	15	27	46
Moderate (once in 10 days / fortnight)	5	26	30	1	62
Rare(not even once a month)	14	22	5	1	42
Total	22	49	50	29	150

This implies that higher economic status enables individuals to afford and consume millets more frequently. Strategies should be developed to make millet products more accessible and affordable for individuals with lower incomes, ensuring that the benefits of millet consumption are not limited to those with higher economic status.

*(c) Education Level Vs Consumption Pattern:*

From Table 5, respondents with higher education levels, particularly those with graduation and post-graduation qualifications, demonstrated a propensity for more frequent millet consumption compared to individuals with a 12th-grade education or lower. This suggests that higher education levels might positively influence the adoption of millets and result in a more frequent consumption pattern.

TABLE 5. EDUCATION LEVEL VS CONSUMPTION PATTERN

Consumption Pattern (1)	12th / less than 12th (2)	Graduation (3)	P.g / more (4)	Total (5)
Frequent(1/more times a week)	1	22	23	46
Moderate ( once in 10 days / fortnight)	12	40	10	62
Rare( not even once a month)	9	19	14	42
Total	22	81	47	150

Educational institutions and health authorities can play a crucial role in creating awareness and disseminating knowledge about the benefits of millets. By incorporating millets into educational curricula, conducting informational campaigns, and fostering a culture of healthy eating, the adoption of millets can be encouraged across all educational strata.

*(d) Occupation Vs Consumption Pattern:*

The occupation of respondents seems to impact the consumption pattern of millets. Individuals employed in the government sector and as private employees exhibited a higher frequency of consumption compared to those in business, homemakers, and students. This suggests that individuals with certain occupations, such as government employees and private sector employees, may have better access to millet-based products or greater awareness, leading to a more frequent consumption pattern.

TABLE 6. OCCUPATION VS CONSUMPTION PATTERN

Consumption Pattern (1)	Business (2)	Govt employee (3)	Home maker (4)	Private employee (5)	Student (6)	Total (7)
Frequent(1/more times a week)	7	21	12	3	3	46
Moderate ( once in 10 days / fortnight)	6	6	19	30	1	62
Rare(not even once a month)	6	3	3	19	11	42
Total	19	30	34	52	15	150

Strategies targeting specific occupational groups, such as business professionals, homemakers, and students, could be developed to enhance their access to millet-based products and increase their awareness of the nutritional benefits associated with millet consumption.

*(e) Reasons for Consumption Vs Consumption Pattern*

From Table 7, the reasons for consuming millets vary among different consumption patterns. Frequent consumers prioritize gluten-free options, health benefits, and cultural preferences, while taste is less influential. Moderate consumers are driven by cultural preferences, health benefits, gluten-free options, and taste. Rare consumers prioritise cooking at home, cultural preferences, and health benefits.

TABLE 7. REASONS FOR CONSUMPTION VS CONSUMPTION PATTERN

Consumption Pattern (1)	Cooked in home (2)	Cultural preferences (3)	Gluten-free options (4)	Health benefits (5)	Taste (6)	Total (7)
Frequent(1/more times a week)	2	6	19	16	3	46
Moderate ( once in 10 days / fortnight)	6	24	5	17	10	62
Rare(not even once a month)	17	13			12	42
Total	25	43	24	33	25	150

Further research with large sample size is needed for robust conclusions. Nonetheless, these findings offer opportunities to promote millets and develop targeted interventions and product developments with respect to the preferences.

*(f) Level of Awareness Vs Consumption Pattern:*

From Table 8, a positive relationship exists between the level of awareness and millet consumption patterns. Among frequent consumers, all are moderately familiar or very familiar with millets. For moderate consumers, the majority have a moderate level of familiarity. However, rare consumers mostly have less familiarity.

TABLE 8. LEVEL OF AWARENESS VS CONSUMPTION PATTERN

Consumption Pattern (1)	Less familiar (2)	Moderately familiar (3)	Very familiar (4)	Total (5)
Frequent(1/more times a week)		11	35	46
Moderate ( once in 10 days / fortnight)	5	57		62
Rare(not even once a month)	25	17		42
Total	30	85	35	150

Targeting rare consumers, who have lower familiarity with millets, may be particularly important. By designing targeted awareness campaigns and providing accessible information through various channels, such as social media, workshops, and community engagement programmes, the level of awareness can be raised.

*(g) Source of Awareness Vs Consumption Pattern:*

From Table 9, respondents who mentioned news media, personal research, and professional guidance/programs as their sources of awareness had a higher frequency of consumption. In contrast, those who relied on social media and word of mouth had a lower frequency of consumption.

TABLE 9. SOURCE OF AWARENESS VS CONSUMPTION PATTERN

Consumption Pattern (1)	News media (2)	Personal research (3)	Professional guidance / programs (4)	Social media (5)	Word of mouth (6)	Total (7)
Frequent(1/more times a week)	11	18	14	2	1	46
Moderate (once in 10 days / fortnight)	11	2	4	25	20	62
Rare (not even once a month)	7	1	8	14	12	42
Total	29	21	26	41	33	150

Collaborating with news media outlets, nutrition experts, and professionals in the field can help in creating informative content that promotes millet consumption. By empowering individuals with reliable knowledge, the consumption pattern can be positively influenced, leading to improved health outcomes and the adoption of sustainable dietary practices.

*(h) Factors That Encourage More Consumption/Constraints of Lower Consumption Vs Consumption Pattern:*

The data in Table 10 indicates that frequent consumers said increased availability and lower prices are potential factors that encourage millet consumption. Moderate consumers said lower prices as the potential factors that encourage millet consumption. Rarer consumers said more awareness as the potential factors that encourage millet consumption.

TABLE 10. FACTORS THAT ENCOURAGE MORE CONSUMPTION/CONSTRAINTS OF LOWER CONSUMPTION VS CONSUMPTION PATTERN

Consumption Pattern (1)	Increased availability (2)	Lower prices (3)	More awareness (4)	Total (5)
Frequent(1/more times a week)	22	21	3	46
Moderate ( once in 10 days / fortnight)	21	27	14	62
Rare(not even once a month)	10	8	24	42
Total	53	56	41	150

To increase the availability and making millets affordable at lower prices, millets can be distributed through the Public Distribution System (PDS). The neighbouring state Odisha has taken this step of including millets in PDS system, millets will be offered in addition to the monthly quota of rice given under the welfare schemes of the state government, this will also increase the household consumption of millets among low- and middle-income groups.

*(i) Most Consumed Millet Vs Consumption Pattern:*

From Table 11, foxtail millet appears to be the most frequently consumed, followed by finger millet, where as in case of moderate consumer’s finger millet is the highest consumed.

TABLE 11. MOST CONSUMED MILLET VS CONSUMPTION PATTERN

Consumption Pattern (1)	Finger millet (2)	Foxtail millet (3)	Kodo – kutki (4)	Pearl millet (5)	Total (6)
Frequent(1/more times a week)	14	22	5	5	46
Moderate ( once in 10 days / fortnight)	22		19	21	62
Rare(not even once a month)	18		8	16	42
Total	54	22	32	42	150

But Foxtail Millet is consumed by only those who are consuming frequently. This may suggest a particular liking for Foxtail millet in the population studied. Understanding such consumption patterns is essential for policymakers and stakeholders involved in promoting millet consumption. Promoting millet-based ethnic foods can play crucial role in increasing millet consumption. These dishes hold

cultural significance, connecting people to their heritage. For instance, the Odisha Millets Mission includes ragi laddus in preschool children's diets in Keonjhar and Sundergarh districts. This approach preserves culinary traditions while introducing millets to modern eating habits.

*(j) Age of Respondents Vs Consumption Pattern:*

From Figure 7 and Table 12, it is evident that the median age of individuals classified as frequent consumers is approximately 45 years, which significantly surpasses the median ages of moderate and rare consumers. The distribution of frequent consumers' ages predominantly centers around 40 years and above. This observation underscores that millet consumption is notably prevalent among individuals in the middle-aged and elderly demographics, as opposed to the younger age groups. This was in line with the study by Reddy and Patel (2023), where it was observed that seniors and adults consume millets more frequently.

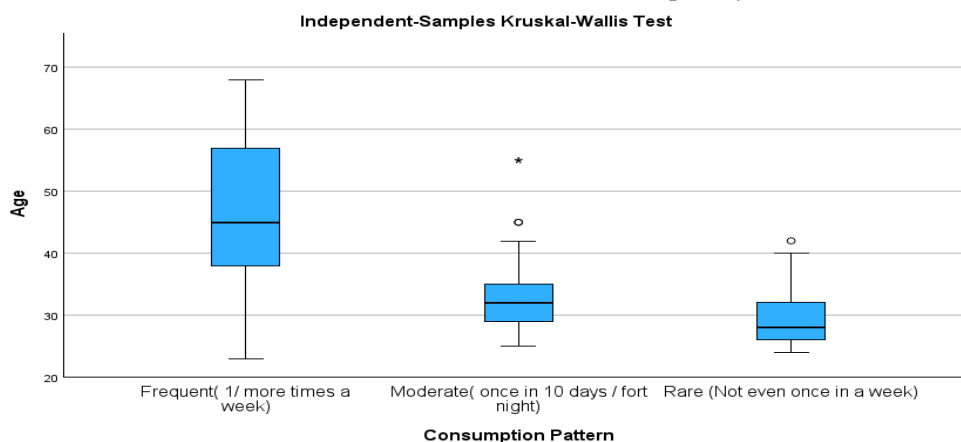


Figure 7. Boxplot of Consumption Pattern Across Age of Respondents

The implications of this finding warrant attention from governmental bodies. There exists an opportunity for policy interventions to enhance the dissemination of information regarding the nutritional benefits of millet consumption among younger generations, including adolescents and teenagers.

TABLE 12. AGE OF RESPONDENTS VS CONSUMPTION PATTERN:

Consumption Pattern (1)	20 – 34 (2)	35 – 50 (3)	>50 (4)	Total (5)
Frequent(1/more times a week)	3	27	16	46
Moderate ( once in 10 days / fortnight)	42	18	2	62
Rare(not even once a month)	37	5		42
Total	82	50	18	150

By doing so, it is plausible to contribute to the establishment of a foundation for healthier and more nourished forthcoming generations. This is of relevance in India, a nation distinguished by its sizable youth population. Such initiatives align with the overarching goal of fostering a populace that prioritizes holistic well-being and sustenance.

#### IV

#### CONCLUSIONS

This study provides valuable insights into the factors influencing millet consumption patterns and offers practical implications for promoting millet consumption. The findings highlight the positive association between the level of awareness and the consumption pattern, indicating the importance of educational campaigns and awareness programs. Demographic factors, except for gender, and factors such as health benefits, gluten-free options, cultural preferences, and cooking at home, emerged as significant drivers of millet consumption. The findings underscore the potential for enhancing awareness campaigns, particularly among those with lower familiarity and younger age groups. Social media emerges as a key channel for information dissemination, warranting strategic interventions to leverage its reach effectively. The study also emphasises the importance of availability, affordability, and nutritional education to bridge consumption disparities. Schools and colleges can take initiatives to promote the importance of millet consumption by working with cafeteria staff to introduce millet-based dishes on the menu. Strategies that focus on making millets more accessible to lower-income groups, integrating millets into educational curricula, and collaborating with media outlets for informative content dissemination are warranted. Additionally, the study suggests that millets have the potential to be distributed through the Public Distribution System (PDS) for increasing the availability and making millets affordable at lower prices, and to increase household consumption among low- and middle-income groups. This finding underscores the importance of integrating millets into existing food distribution mechanisms and policies, the neighbour state Odisha has taken this step of including millets in PDS system, millets will be offered in addition to the monthly quota of rice given under the welfare schemes of the state government. Same can be followed in case of Chhattisgarh as it can contribute to addressing nutritional deficiencies and diversifying food options for vulnerable populations. By integrating the findings of this study with previous research and addressing the identified limitations, policymakers, researchers, and food industry stakeholders can design effective strategies to promote millet consumption, ultimately contributing to improved nutrition, sustainability, and public health outcomes. Future studies should employ larger sample size and appropriate statistical techniques, such as regression analysis to quantify the impact of factors on millet consumption.

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