



Awareness about Nutritional Benefits of Millets among Young Adults of Ayodhya District, India

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Millets are the group of small seeded grasses that have various benefits. Millets are also known as super nutritious grain which have multiple health and nutritional benefits. Millets have versatility which can be used for various dishes and it is one of the sustainable choices for agriculture and

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has great impact on environment. The impact of millet on environment are an excellent source of nutrients and have outstanding characteristics related to climate adaptation. Thus, millets could contribute to achieving the Sustainable Development Goals (SDGs) set forth by the United Nations [1]. The aim was to assess the consumption of millets and to explore awareness about nutritional benefits of millets among young adults of Ayodhya district. The study participants were young adults between 18-32 years pursuing studies in various disciplines in Ayodhya district. Data regarding the awareness, consumption, opinion, knowledge, preferences and the taste of millets among young adults were collected using a Google questionnaire 100 responses were collected. Gender females are more aware about the benefits of millets and high education level shows they are more knowledgeable about benefits of millets. The majority of respondents heard about millets but regularly did not consume them and also did not know about difference of major, minor and pseudo millets categorically. Some people didn't like the taste of it but knew the importance of millets. The purpose for the study and its potential contributions to understanding young adult's awareness and behaviours towards millet products and a demographic pivotal in shaping future food trends and dietary habits. With the growing recognition of millets as nutritious, climate-resilient crops, understanding the factors influencing their acceptance and integration into diets is crucial for promoting sustainable food systems and improving public health.

Keywords: Millets; empowerment; nutritious; sustainable grain.

1. INTRODUCTION

Millets are a group of small-seeded grasses grown as cereal crops or grains for human consumption. They are highly nutritious, gluten-free, and environmentally sustainable. Millets have been cultivated for centuries, particularly in semi-arid regions of Asia and Africa, and they are gaining popularity globally due to their health benefits and resilience to climate change [2,3]. They come in various types, including pearl millet, foxtail millet, finger millet, and sorghum, each with its own unique flavor and nutritional profile.

Millet Year: The International Year of Millets, designated by the United Nations for 2023, was all about highlighting the importance of millets for food security, nutrition, and the environment. Millets are packed with nutrients and are environmentally friendly to grow, making them a fantastic choice for sustainable agriculture. That special year aimed to spread awareness about the benefits of millets and promote their consumption worldwide. It was a great way to showcase these nutritious grains and their positive impact on both health and the planet.

Below are the most commonly cultivated and consumed millets that include crops like:

- Pearl millet (Bajra)
- Finger millet (Ragi)
- Sorghum (Jowar)
- Foxtail millet (Kangni/Kakum)
- Proso millet (Cheena)

Minor Millets: These are less commonly cultivated and consumed compared to major millets. They include:

- Barnyard millet (Sanwa)
- Kodo millet (Kodon)
- Little millet (Kutki)
- Brown top millet (Sawa)

Pseudo Millets: These are not true millets but are often classified as such due to their similar nutritional profile and culinary uses. Examples include:

- Amaranth (Rajgira)
- Quinoa
- Buckwheat (Kuttu)

Nutritional benefits of millets: Rich in Nutrients: Millets are packed with essential nutrients such as iron, calcium, magnesium, phosphorus, and potassium, which are crucial for growth and development [4].

1. **High in Fiber:** They are an excellent source of dietary fiber, promoting digestive health and preventing constipation. High fiber content also helps in maintaining a healthy weight.
2. **Low Glycemic Index:** Millets have a low glycemic index, which means they release sugar into the bloodstream slowly, helping to regulate blood sugar levels and providing sustained energy.
3. **Gluten-Free:** Millets are naturally gluten-free, making them suitable for

individuals with gluten intolerance or celiac disease.

4. **Source of Protein:** They contain a good amount of plant-based protein, essential for muscle growth and repair, as well as overall health.
5. **Antioxidant Properties:** Millet has a high concentration of phenolic chemicals, which makes it a powerful antioxidant. Along with xylo-oligosaccharides, insoluble fibers, and peptides, millet grains also had phenolic acids, flavonoids, and tannins, which are naturally occurring phenolic components.
6. **Supports Bone Health:** Millets are rich in calcium and magnesium, which are essential minerals for bone health, particularly important during the growth years of adolescence.

Incorporating millets into the diet of young people can contribute to their overall health and well-being, providing a nutritious and sustainable alternative to refined grains.

Millets uses in modern world among young adult population: In the modern world, millets are gaining popularity among young adults due to their versatility and numerous health benefits. Here are some common uses of millets among the young adult population:

1. **Dietary Diversification:** Many young adults are incorporating millets into their diets as a way to diversify their food choices and explore alternative grains beyond rice and wheat.
2. **Gluten-Free Options:** With the rise in gluten sensitivities and celiac disease diagnoses, young adults are turning to millets as gluten-free alternatives for staples like bread, pasta, and baked goods.
3. **Health Consciousness:** As young adults become increasingly health-conscious, they are drawn to millets for their nutritional value, including their high fiber, protein, and micronutrient content.
4. **Athletic Performance:** Millets are valued by young athletes and fitness enthusiasts for their slow-releasing carbohydrates, which provide sustained energy levels during workouts and aid in post-exercise recovery.
5. **Environmental Sustainability:** Concerns about environmental sustainability drive some young adults to choose millets, as they require fewer resources like water and fertilizer compared to conventional grains like rice and wheat.

6. **Culinary Innovation:** Young adults are experimenting with millets in the kitchen, incorporating them into recipes for porridge, salads, stir-fries, burgers, and even desserts like cookies and cakes.
7. **Support for Local Farmers:** By purchasing millets, young adults are often supporting local farmers and sustainable agriculture practices, contributing to the growth of small-scale farming communities.

Overall, the versatility, health benefits, and eco-friendly nature of millets make them an attractive option for young adults looking to improve their diets and make sustainable food choices.

1.1 Rational of the Study

The purpose of the study and how it might help comprehend young adults' attitudes and behaviors about items made from millet. The demographic findings from this study will be crucial in determining dietary patterns and food trends in the future. Understanding the variables influencing millets' adoption and integration into diets is essential for fostering sustainable food systems and enhancing public health, as millets are being recognized as wholesome, climate-resilient crops. In order to support sustainable agriculture practices and encourage millet consumption, this study aims to provide insights that can guide targeted interventions and policies by investigating young adults' perceptions of taste, health benefits, cultural influences, and accessibility barriers related to millet consumption.

1.2 Objectives of the study

1. To assess the consumption of millets among young adults.
2. To explore awareness about nutritional benefits of millets among young adults.

2. REVIEW OF LITERATURE

1. Sangeetha, M. U., Mounika, M. D., & Sireesha, G. [5] Assessment of millets consumption among young females (18-23 years) in Tirupati. That study investigates how important a role they play in households' overall nutritional security. The results of the study showed that although the participants were aware of the health benefits of eating millets, they were not actually eating them often.

2. Reddy, R., & Patel, D. [6]. A Study on Consumers' Awareness and Preference towards Millets and Its Products in Vizianagaram District, Andhra Pradesh, India. That study looks at word-of-mouth and social media as the primary sources of information about millets and their health advantages. According to the study, millets are more commonly consumed by adults and seniors, and most individuals like to eat them for breakfast and dinner. It was discovered that the millet goods were not easily accessible and that this needed to change. Supermarkets are the most popular places to get value-added millets, whereas Kirana stores are the best option for raw millets.
3. Lakra, P., Gahlawat, I. N., & Hussain, A. [7]. Millet Mania: Exploring Awareness and Consumption Patterns among College Students. In that study the majority of respondents believed that millets were healthy and knew about their nutritional advantages. The reasons for not consuming millets were found to include lack of understanding about the preparation techniques, being the only one in the home ingesting them, an unpleasant flavor, and a lengthy preparation time.

3. METHODOLOGY

3.1 Research Design

The research design was descriptive in nature. Phase wise plan of work

Phase I: Framing of objectives, designing of tools and identification of sample.

Phase II: Collection of data from the selected sample.

Phase III: Analysis of data and report writing.

3.2 Locale of the Study

The study was conducted in rural area of Ayodhya district of eastern U.P. due to availability, convenience and easy accessibility of the samples.

3.3 Sampling Procedure

A total of 100 students from Acharya Narendra Dev University of Agriculture and Technology was included in the study. The sample was

chosen using purposive random sampling method.

3.4 Variables of the Study and their Operational Definition

Independent variables-

- A. Age
- B. Education
- C. Gender
- D. Ethnicity

Dependent variables-

- A. Awareness
- B. Consumption of millets

3.5 Tools and Techniques Used

A self structured questionnaire schedule (Google form) was used to collect data.

3.6 Analysis and Interpretation of Data

Frequency, Correlation (Pearson) analysis and interpretation was used to analyze the data.

4. RESULTS AND DISCUSSION

Table 1 represents that more than half (52%) of the respondents belonged to 23-27 years followed by 35 percent respondent belonged to 28-32 years and only 13 percent of respondents belonged to 18-22 years in this category, 44 percent of respondents are belonged to male category and followed by 56 percent respondents belonged to female in this category, most of the (52%) respondents are belonged to Graduation followed by most of the (26%) respondents belonged to Masters followed by 13 percent respondents are belonged to Intermediate and 9 percent respondents belonged to Research Scholar in this category, more than half (93%) belonged to unmarried respondents followed by 7 percent respondents belonged to married in this category, represents that more than half (97%) respondents belonged to the Hindu religion followed by 2% respondents belonged to the Christian religion and 1 percent respondent belonged to Muslim religion in this category, more than half (57%) respondents belonged to the Urban area and 43% respondents belonged to the rural area in this category, most of the (91%) respondents belonged to be a students and very few (9%) respondents belonged to be not the students, they work under research projects in the university.

Table 1. Demographic profile of the respondent

Variable	Category	F(%)
Age (Years)	18-22	13(13%)
	23-27	52(52%)
	28-32	35(35%)
Sex	Male	44(44%)
	Female	56 (56%)
Educational Qualification	Intermediate	13(13%)
	Graduation	52(52%)
	Masters	26 (26%)
	Research Scholar	(9) (9%)
	Other, Specify	0(0%)
Marital Status	Single	93 (93%)
	Married	7 (7%)
Religion	Hindu	97 (97%)
	Muslim	1(1%)
	Christian	2(2%)
Ethnicity	Rural	43(43%)
	Urban	57(57%)
Are you student	Yes	91 (91%)
	No	9(9%)

Table 2. Knowledge level about millets and its consumption

Which type of millet is known as the king of millets		
	Pearl Millet	23(23%)
	Finger Millet	10(10%)
	Foxtail Millet	5(5%)
	Sorghum	33(33%)
	Don't Know	29(29%)
Millets are gluten-free grains		
	True	83(83%)
	False	8(8%)
	Don't Know	9(9%)
Which millet is commonly used in making flatbreads in India		
	Pearl Millet	25(25%)
	Finger Millet	18(18%)
	Foxtail Millet	11(11%)
	Sorghum	8(8%)
	Don't Know	38(38%)
Which type of millet is rich in iron & calcium		
	Pearl Millet	18(18%)
	Finger Millet	28(28%)
	Foxtail Millet	14(14%)
	Sorghum	9(9%)
	Don't Know	31(31%)
Name a millet that is often used as a replacement for rice in certain dishes.		
	Pearl Millet	10(10%)
	Finger Millet	22(22%)
	Foxtail Millet	23(23%)
Which of the following major millets are mostly eaten?		
	Finger Millet	30(30%)
	Barnyard Millet	14(14%)

	Little Millet	10(10%)
	Kodo Millet	11(11%)
	Don't Know	35(35%)
Minor millets are less commonly cultivated compared to major millets		
	True	52(52%)
	False	13(13%)
	Don't Know	35(35%)
Which millet is known as "Kutki" in hindi & is commonly used in Ayurvedic medicine		
	Foxtail Millet	8(8%)
	Barnyard Millet	10(10%)
	Proso Millet	16(16%)
	Little Millet	30(30%)
	Don't Know	36(36%)
Which millet is known for its high protein content & is often used as a staple food in parts of Africa		
	Finger Millet	10(10%)
	Kodo Millet	17(17%)
	Pearl Millet	17(17%)
	Proso Millet	9(9%)
	Don't Know	47(47%)
Millets are known for their resilience to drought & their ability to grow in harsh conditions		
	True	60(60%)
	False	13(13%)
	Don't Know	27(27%)
Major millets are widely cultivated & consumed in many countries including India		
	True	61(61%)
	False	14(14%)
	Don't Know	25(25%)
Which millet is known for its high iron and calcium content		
	Finger millet	28(28%)
	Pearl millet	19(19%)
	Foxtail millet	15(15%)
	Proso millet	6(6%)
	Don't know	32(32%)
Which millet is commonly known as "ragi"?		
	Finger millet	42(42%)
	Pearl millet	11(11%)
	Foxtail millet	15(15%)
	Proso millet	5(5%)
	Don't know	27(27%)
Minor millets are less commonly cultivated compared to major millets.		
	True	47(47%)
	False	18(18%)
	Don't Know	35(35%)
Which of the following are major millets?		
	Finger millet (Ragi)	11(11%)
	Pearl millet (Bajra)	11(11%)
	Sorghum (Jowar)	11(11%)
	All of the above	48(48%)
	Don't Know	19(19%)

Which of the following are minor Millets.		
Barnyard millet & Kodo	11(11%)	
Little millet & Foxtail millets	12(12%)	
Porso millets	5(5%)	
All of the above	40(40%)	
Don't Know	32(32%)	
Which of the following are pseudo millets:		
Amaranth & Buckwheat	31(31%)	
Barnyard millet & Kodo millet	15(15%)	
Sorghum(Jowar)	10(10%)	
All of the above	11(11%)	
Don't Know	33(33%)	
Have you ever tasted a millet-based dish?		
Yes, I have tried millet recipes before.	70(70%)	
No, I haven't had the chance to try millet recipes yet.	30(30%)	
Which millet-based dish have you tried, if any?		
Ragi dosa	22(22%)	
Bajra khichdi	38(38%)	
Foxtail millet upma	7(7%)	
Proso millet pulao	12(12%)	
Little millet pongall	5(5%)	
Haven't tried any millet-based dish	16(16%)	
How would you describe your experience with millet-based dishes		
Delicious I loved the flavors and textures.	39(39%)	
They were okay, but not my favorite.	47(47%)	
I didn't enjoy them at all	14(14%)	
Are you open to trying new millet recipes?		
Yes, I love exploring new flavors!	56(56%)	
Maybe, I'm willing to give it a try.	34(34%)	
No, I prefer sticking to familiar recipes	10(10%)	
Which millet recipe would you like to try?		
Millet pancakes	25(25%)	
Millet salad	13(13%)	
Millet porridge	6(6%)	
Millet stir-fry	14(14%)	
Millet pudding	12(12%)	
I'm not sure, surprise me	30(30%)	
Do you have any dietary restrictions or preferences that I should consider when suggesting millet recipes?		
Gluten-free	31(31%)	
Vegan/ Vegetarian	23(23%)	
Nut-free	12(12%)	

	None, I'm open to any suggestions	34(34%)
Have you ever cooked with millet yourself		
	Yes, I enjoy experimenting in the kitchen	54(54%)
	No, I prefer leaving the cooking to the experts	46(46%)

Table 3. About the opinion of millets towards increasing economy

Questions	Category	F(%)
Increased production and consumption of millets can contribute to the growth of local economies.	Strongly Disagree	5(5%)
	Disagree	4(4%)
	Neutral	22(22%)
	Agree	51(51%)
	Strongly Agree	18(18%)
Millets have the potential to create employment opportunities in farming and related industries.	Strongly Disagree	4(4%)
	Disagree	4(4%)
	Neutral	30(30%)
	Agree	49(49%)
	Strongly Agree	13(13%)
The demand for millets can lead to increased income for farmers and rural communities.	Strongly Disagree	5(5%)
	Disagree	3(3%)
	Neutral	28(28%)
	Agree	51(51%)
	Strongly Agree	13(13%)
Supporting millet production can help in achieving food security and reducing import dependency	Strongly Disagree	4(4%)
	Disagree	3(3%)
	Neutral	24(24%)
	Agree	51(51%)
	Strongly Agree	18(18%)
The promotion of millets can lead to the development of a sustainable and resilient agricultural sector.	Strongly Disagree	5(5%)
	Disagree	5(5%)
	Neutral	21(21%)
	Agree	49(49%)
	Strongly Agree	20(20%)

Table 2 revealed intriguing insights into adult participants' knowledge and consumption patterns of millets. It showed that while many participants (33%) were unaware of sorghum's status as the "king" of millets, 33% of them did. The majority of people (83%) had a strong understanding of millets' lack of gluten. Finger millet, or ragi, was recognized as having a high iron and calcium content (28%) and being frequently used in flatbreads (18%). Consumption of pearl millet as a replacement for rice was linked (10%). While a sizable portion (35%) were uncertain about major vs. minor millets, a fair proportion (48%) correctly identified finger millet, pearl millet, and sorghum as major ones. Foxtail millet looked less familiar.

Understanding of pseudo millets, such as amaranth and buckwheat was lower (31%) and buckwheat. Most people (70%) had tasted millet meals; the most popular one being bajra khichdi (38%). There was a wide range of experiences; 47% thought they were alright, and 39% thought the flavors and textures were excellent. Additionally, these tables showed that while a sizeable percentage (35%) was unaware of the distinction between major and minor millets, a respectable amount (48%) correctly identified the big three—finger millet, pearl millet, and sorghum—as well as millet meals and a willingness to try new ones. It's noteworthy to note that 38% of people's most familiar cuisine is bajra khichdi, a savory millet porridge. This

illustrates how common it is in some areas. Positive encounters (39%) and a willingness to try new recipes (56%) indicate that there may be dietary restrictions: A significant fraction of participants (31%) stated being gluten-free, and there's a clear possibility to create millet recipes that meet these needs. There's also the chance to increase millet consumption through creative dishes. This can help make millet even more appealing to a larger range of individuals. It also showed that a base of people are comfortable with cooking with millet, as seen by the nearly equal percentage of respondents who had cooked with millet (54%) and those who haven't (46%). All things considered, there's a fair amount of knowledge about millets, especially in light of their popular variety and gluten-free status. But there's also a lack of understanding regarding particular kinds and their special characteristics. Positive millet dish experiences and a willingness to explore new recipes point to the possibility of greater millet consumption.

Table 3 demonstrated how more production and consumption of millet might boost local economies, with the majority of respondents (69%) agreeing or strongly agreeing that this can happen. Just 9% of respondents disagree. This implied that millets were seen favourably as an engine of economic expansion. Additionally, this table demonstrated that millets have the ability to provide jobs in agriculture and allied industries, with 62% of respondents agreeing or strongly agreeing with this statement. Merely 8% of respondents disagree, suggesting that millets are perceived as a potential source of employment for farmers, as well as in related industries such as processing. Additionally, the table showed that rising millets demand can boost farmer income; most respondents (64%) agreed or strongly agreed that rising demand for millet can increase rural communities' and farmers' incomes. This table also showed that supporting millets can enhance food security & reduce imports; over two-thirds (69%) of respondents agree or strongly agree that supporting millet production can contribute to food security and lessen reliance on imports. Only 8% disagree, suggesting a belief that increased millet consumption can improve the economic well-being of farmers and rural areas. Finally, this table showed that promoting millets can result in a sustainable and resilient agricultural sector, with the majority (69%) agreeing or strongly agreeing that doing so can create a more resilient and sustainable food supply. Less than

8% disagree, indicating a recognition of millets' potential to ensure a stable food supply and reduce dependence on imported grains for robust and sustainable farming system. Merely 10% of respondents expressed disagreement and said that millets are viewed as a means of constructing a more resilient and challenge-adaptive agriculture industry. This table indicated a generally optimistic view about millets' capacity to support regional economic expansion. They are perceived by the public as fostering a sustainable agricultural system, improving food security, generating revenue.

Table 4 revealed that questions Nos. 1, 5 and 7 dealt with respondents' general awareness of millets, with a considerable proportion of respondents (approximately 42%) indicating that they are familiar with them to some extent. There are glaring gaps in our understanding of several elements of millets. Regarding millet varieties (question 13), cultivation (question 12), and worldwide producers (question 11), a sizable portion of respondents (over 15%) expressed uncertainty. The results also showed that the groups of "somewhat familiar" and "quite familiar" gave high marks to health benefits such as being gluten-free (Q8), complex carbs (Q16), and dietary fiber (Q18). This suggests that individuals are curious about millets' potential health benefits. The findings indicated that gluten-free products for individuals with dietary restrictions (Q20) and plant-based protein (Q19) both scored rather high. This implies possibility for specialized correspondence with vegans, vegetarians, and others who are gluten sensitive. A low score for "grandparents sharing knowledge" (Q14) in this question's results suggested that there may be a generational difference in millet consumption or knowledge [8].

4.1 Relationship between Independent Variables and Awareness towards Millets

Table 5 The results revealed that insight into the relationship between independent variables and dependent variable. The Table 5 was evident that the independent variable viz; gender and ethnicity are positively and significantly correlated with awareness of millets where as age and education are negatively and significantly correlated with awareness of millets at a meaning level of 5 percent [9,10].

Table 4. Distribution of respondent on the basis of the awareness about millets

S.no	Questions	No idea F (%)	Heard about it, but Not Sure F (%)	Some what Familiar F (%)	Quite Familiar F (%)	Very Familiar F (%)
1.	Do you know what millets are and where they come from?	5(5%)	10(10%)	42(42%)	24(24%)	19(19%)
2.	Have you ever heard about various health benefits millets before?	5(5%)	19(19%)	21(21%)	28(28%)	27(27%)
3.	Are you aware of the various types of millets available	15(15%)	23(23%)	32(32%)	15(15%)	10(10%)
4.	Do you know that millets are a good source of vegan protein ?	19(19%)	20(20%)	21(21%)	30(30%)	10(10%)
5.	Do you know the nutritional benefits of consuming millets?	12(12%)	13(13%)	34(34%)	24(24%)	17(17%)
6.	Are you aware that millets are rich in fiber and can aid in digestion?	10(10%)	13(13%)	26(26%)	29(29%)	22(22%)
7.	Do you know that millets are a good source of protein and can help in muscle development?	7(7%)	9(9%)	42(42%)	22(22%)	20(20%)
8.	Are you familiar with the fact that millets are gluten-free and can be a great alternative for people with gluten sensitivity or celiac disease?	23(23%)	7(7%)	27(27%)	22(22%)	21(21%)
9.	Have you heard that millets are rich in antioxidants and can help in preventing chronic diseases?	15(15%)	16(16%)	29(29%)	21(21%)	19(19%)
10.	Are you aware that millets are environmentally friendly and require less water and resources to grow compared to other grains?	10(10%)	14(14%)	30(30%)	18(18%)	28(28%)
11.	Do you know which countries are major producers of millets?	21(21%)	8(8%)	41(41%)	18(18%)	12(12%)
12s.	Are you familiar with the cultivation procedure of millets?	14(14%)	18(18%)	27(27%)	21(21%)	20(20%)
13.	Are you aware of the any specific varieties of millets?	6(6%)	13(13%)	25(25%)	33 (33%)	23(23%)
14.	Do you remember that your grand parents have given knowledge about millets in your childhood?	20(20%)	15(15%)	32(32%)	15(15%)	18(18%)
15.	Do you know if the growing conditions in different regions affect the taste and quality of millets?	12(12%)	28(28%)	32(32%)	12(12%)	16(16%)
16.	Are you aware that millets are a good source of complex	15(15%)	16(16%)	34(34%)	20(20%)	15(15%)

S.no	Questions	No idea F (%)	Heard about it, but Not Sure F (%)	Some what Familiar F (%)	Quite Familiar F (%)	Very Familiar F (%)
	carbohydrates and can provide sustained energy?					
17.	Do you know that millets are rich in essential minerals like iron, magnesium and phosphorus?	13(13%)	9(9%)	45(45%)	17(17%)	16(16%)
18.	Are you familiar with the fact that millets contain a good amount of dietary fibre which can aid in digestion and promote a healthy gut.	20(20%)	25(25%)	12(12%)	25(25%)	18(18%)
19.	Have you heard that millets are a great source of plant-based protein and can be beneficial for vegetarians and vegans?	13(13%)	11(11%)	36(36%)	25(25%)	15(15%)
20.	Are you aware that millets are naturally gluten-free and can be a suitable option for individuals with gluten sensitivity or celiac disease?	14(14%)	19(19%)	28(28%)	21(21%)	18(18%)

Table 5. Corelation between independent variables (age, education, gender and ethnicity) and dependent variable (awareness towards millets)

S.No.	Independent Variable	Awareness
1.	Age	-0.034847929
2.	Education	-0.071675488
3.	Gender	0.165648244*
4.	Ethnicity	0.153379921*

**Significant at 0.05 level*

5. CONCLUSION

Millets are highly nutritious grains with many promoting many health benefits including significant amounts of fibres, protein, vitamins, and minerals like magnesium and iron. This research conclude that person's level of education reveals their level of awareness, while a person's age reveals their level of knowledge.

The findings emphasized that there was a significance relationship between dependent and independent variables. Some independent variables like gender and ethnicity were positively corelated with dependent variable (awareness of millets) where age and education were negatively corelated with the awareness about millets.

According to the previous studies focused that the value of educational campaigns and programs to advance knowledge and encourage millets to be consumed. It suggests that future initiatives concentrate on customized learning initiatives, collaboration with academic establishments, and utilizing digital channels for efficient information distribution. Adults can gain a deeper grasp of environmentally friendly agriculture through practical lessons such as agricultural clubs and gardening projects. Healthy eating practices can be encouraged through cooking demos and seminars including millet-based meals. NGOs and local farmers working together, awareness-raising efforts, and encouragement for research projects

MAJOR FINDINGS

According to ethnicity, urban individuals are more aware of millets than those in rural areas, and females are more aware of these benefits than males.

A low degree of education indicates a lack of awareness, whereas a high level of education indicates a greater level of understanding of millets. Age-related increases in millets awareness similarly follow education levels.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that generative AI technologies such as Large Language Models, etc have been used during writing or editing of manuscripts. This explanation will include the name, version, model, and source of the

generative AI technology and as well as all input prompts provided to the generative AI technology.

Details of the AI usage are given below:

- 1.Chat gpt3.5
- 2.Gemini tool

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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