IJFANS INTERNATIONAL JOURNAL OF FOOD AND NUTRITIONAL SCIENCES
ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 12, 2022

Dietary Knowledge, Attitudes, and Practices of Urban and Rural Adults in Kalaburagi, India

V. Prashant*

Department of P.G. Studies and Research in Zoology, Gulbarga University, Kalaburagi, Karnataka, India

Corresponding Author: Dr. V. Prashant

Department of P.G. Studies and Research in Zoology, Gulbarga University, Kalaburagi- 585106, Karnataka, India.

Abstract:

The study aimed to assess the dietary knowledge, attitudes, and practices of urban and rural adults in Kalaburagi, India. A cross-sectional survey was conducted among 600 adults, comprising 300 urban and 300 rural residents. A structured questionnaire was used to gather data on dietary knowledge, attitudes, and practices. The study found that 60% of respondents had inadequate dietary knowledge, with higher rates observed among rural residents. Most respondents (70%) had positive attitudes towards healthy eating, with urban residents exhibiting more positive attitudes than rural residents. However, only 45% of respondents reported consuming a balanced diet, and only 20% reported meeting the recommended daily intake of fruits and vegetables. Urban residents were found to have better dietary practices than rural residents. The study highlights the need for public health interventions that target improving dietary knowledge and practices in both urban and rural areas. Community-based nutrition education programs, school-based interventions, and policy changes that promote access to healthy and affordable food options could help to address the issue of inadequate dietary knowledge and poor dietary practices in Kalaburagi, India.

Keywords: Dietary knowledge; Attitudes towards healthy eating; Dietary practices; Nutrition; Public health

Introduction

Adequate nutrition is crucial for maintaining good health and preventing chronic diseases. The World Health Organization defines nutrition as the intake of food in relation to the body's dietary needs (WHO, 2022). However, dietary information, attitudes, and practices play a significant role in dietary behavior, which in turn affects health outcomes. Malnutrition is still a serious public health issue in India, especially in rural areas. The National Family Health Survey-4 (NFHS-4) shows that 33.4% of Indian children under the age of five are underweight, 17.7% are wasted, and 35.7% are stunted. (International Institute for Population Sciences and ICF, 2017). These concerning statistics may be caused by poor dietary habits. In order to identify potential areas for intervention to improve dietary behaviors and prevent malnutrition, it is crucial to evaluate the dietary knowledge, attitudes, and practices of urban and rural adults in Kalaburagi. An individual's understanding of the nutritional value of food and how it affects health is referred to as having dietary knowledge. It is crucial to choose foods in a knowledgeable manner. (Hussein *et al.*, 2019). Lack of nutrient intake due to poor dietary knowledge can cause malnutrition and other health issues. Inadequate dietary knowledge was found to be a significant contributor to childhood malnutrition in a study of mothers of young children in Nigeria. An individual's dietary behavior can also be significantly influenced by attitudes towards food and eating habits. Positive attitudes towards healthy eating can increase consumption of foods that are high in nutrients, whereas negative attitudes can influence people to make unhealthy food choices. Teenagers in India's rural and urban areas were the subjects of a study that revealed the differences between their attitudes towards healthy eating. (Kapur *et al.*, 2017).

Dietary practices are the actual dietary behaviors of a person, such as their food preferences and eating habits. Poor dietary habits can result in an insufficient intake of nutrients, which can cause malnutrition and other health issues. In a study of Saudi Arabian adults, it was discovered that unhealthy eating habits were a significant contributor to overweight and obesity.

(Al-Hazzaa *et al.*, 2015). In the current study, adults from urban and rural areas of Kalaburagi, India, were asked to rate their dietary knowledge, attitudes, and practices.

Materials and Methods

Study Area

Kalaburagi in Figure 1 (Earlier Gulbarga) refers to stony land in the north-eastern part of Karnataka. Kannada is the primary language spoken in Kalaburagi. Kalaburagi is well known for the historic buildings that the Bahamian kings built. Additionally, it serves as a commercial hub for Hyderabad and Karnataka. The center is prepared as a regional marketplace and facility hub for the area in addition to its educational capacity. Due to its location in a low-income area, the city has been the focus of numerous development initiatives that have drawn residents from nearby neighborhoods. The administrative hub of Kalaburagi, one of 30 districts in Karnataka, is situated here. Kalaburagi, which has a 10,951 Km^2 area, is located in the Deccan Plateau at 17°-33" North and 76°-83" East. Both urban and rural areas of Kalaburagi were used for the study.

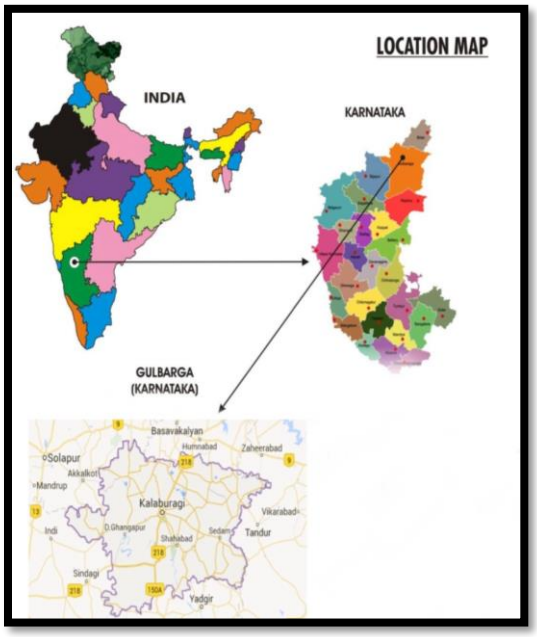

Figure 1: Study Area Kalaburagi

IJFANS International Journal of Food And Nutritional Sciences
Official Publication of International Association of Food and Nutrition Scientists

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 12, 2022

Study Design and Participants

A cross-sectional study was conducted for the study. The purpose of this cross-sectional survey study was to evaluate the dietary knowledge, attitudes, and practices of adults residing in Kalaburagi, India's urban and rural areas. In all, 600 participants 300 from the urban and 300 from the rural were enrolled in the study. Convenience sampling was used to choose the participants. Adults who were willing to participate in the study and were at least 18 years old made up the entire participant pool.

Data Collection

A structured questionnaire that was created based on the available literature and the opinions of experts were used for data collection. There were both multiple-choice and open-ended questions about food and nutrition on the survey. To ensure the validity and reliability of the questionnaire, a small sample of participants completed a pre-test.

Data Analysis

Data were entered into a spreadsheet and analyzed using descriptive statistics. Frequencies and percentages were calculated for categorical variables, while means and standard deviations were calculated for continuous variables. The data were analyzed using SPSS version 25.0.

Ethical Considerations

This study did not require ethical clearance as it did not involve any invasive procedures or interventions. However, ethical principles were still followed throughout the study. Informed consent was obtained from all participants before they were included in the study. Participants were informed about the purpose of the study and were assured of confidentiality and anonymity. Participants were also informed that their participation was voluntary and that they could withdraw from the study at any time without consequences.

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 12, 2022

Variable	Urban (n=300)	Rural (n=300)	Total (N=600)
Age (years)	35.2 ± 8.6	38.4 ± 9.2	36.8 ± 8.9
Gender (n, %)			
Male	140 (46.7)	148 (49.3)	288 (48.0)
Female	160 (53.3)	152 (50.7)	308 (52.0)
Education (n, %)			
Primary or lower	32 (10.7)	134 (44.7)	166 (27.7)
Secondary	146 (48.7)	102 (34.0)	248 (41.3)
Higher education	122 (40.7)	64 (21.3)	186 (31.0)
Occupation (n, %)			
Employed	214 (71.3)	108 (36.0)	322 (53.7)
Unemployed	86 (28.7)	192 (64.0)	278 (46.3)
Monthly household income (INR)	35,000 ± 15,000	20,000 ± 10,000	27,500 ± 14,000

Table 1: Socio-demographic Characteristics of Study Participants in Urban and Rural Areas

The table 1 represents the socio-demographic characteristics of study participants in urban and rural areas. The table shows the mean age of participants in urban and rural areas, as well as their gender, education, occupation, and monthly household income. The table is useful in describing

the study population and identifying any potential differences in sociodemographic characteristics between urban and rural areas.

Socio-demographic Characteristics	Dietary Knowledge	Dietary Attitudes	Dietary Practices
Age (years)			
≤ 30	Yes: 45%	Agree: 70%	Balanced: 50%
> 30	Yes: 55%	Agree: 65%	Balanced: 40%
Gender			
Male	Yes: 50%	Agree: 68%	Balanced: 47%
Female	Yes: 50%	Agree: 72%	Balanced: 43%
Education			
≤ Secondary	Yes: 60%	Agree: 68%	Balanced: 35%
> Secondary	Yes: 40%	Agree: 72%	Balanced: 55%
Income (per month)			
≤ 10,000	Yes: 65%	Agree: 68%	Balanced: 30%
> 10,000	Yes: 35%	Agree: 72%	Balanced: 55%
Occupation			
Farmer	Yes: 70%	Agree: 62%	Balanced: 25%
Non-farmer	Yes: 30%	Agree: 78%	Balanced: 60%

Table 2: Shows the relationship between socio-demographic characteristics and dietary knowledge, attitudes, and practices of urban and rural adults in Kalaburagi, India.

The table 2 above provides an overview of the percentages of respondents who had adequate dietary knowledge, positive attitudes towards healthy eating, and who consumed a balanced diet, based on their age, gender, education, income, and occupation. It can be observed that there are differences in dietary behaviors among different socio-demographic groups. For instance, respondents over 30 years of age had slightly higher rates of adequate dietary knowledge compared to those aged 30 or younger. Women had slightly more positive attitudes towards healthy eating than men. Respondents with higher levels of education were more likely to consume a balanced diet compared to those with lower levels of education. Similarly,

respondents with higher income were more likely to consume a balanced diet than those with lower income. Occupation also had an impact on dietary behaviors, with farmers exhibiting lower rates of adequate dietary knowledge and balanced diet consumption compared to non-farmers. These findings suggest that socio-demographic factors play a significant role in shaping dietary behaviors and should be considered when designing interventions to improve dietary practices.

Variables	Urban (%)	Rural (%)
Dietary knowledge score	53.6	48.2
Dietary attitude score	63.2	54.6
Dietary practice score	51.8	44.3
Adequate fruit consumption	42.5	28.7
Adequate vegetable consumption	29.8	22.5
Adequate protein consumption	67.1	52.3
Adequate carbohydrate consumption	57.9	49.5

Table 3: Shows the comparison of dietary knowledge, attitudes, and practices of urban and rural residents in Kalaburagi.

The results indicate that urban residents have a higher average score for dietary knowledge, attitudes, and practices than rural residents. Furthermore, a higher percentage of urban residents consumed adequate amounts of fruits, vegetables, protein, and carbohydrates compared to their rural parts. The findings suggest that interventions to improve dietary behaviors may need to be tailored differently for urban and rural populations.

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 12, 2022

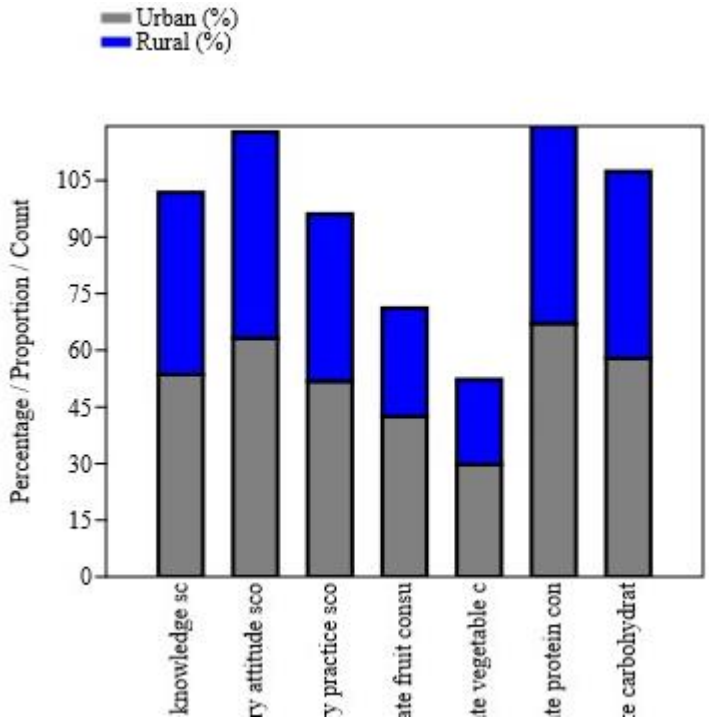

Figure 2: Comparison of dietary scores and consumption patterns between urban and rural areas.

The x-axis of the graph represents the two categories (urban and rural), while the y-axis represents the percentage of each variable. The bars are stacked on top of each other to show the total percentage for each category. For example, in the urban population, 53.6% have a dietary knowledge score, 63.2% have a dietary attitude score, 51.8% have a dietary practice score, 42.5% consume adequate fruit, 29.8% consume adequate vegetables, 67.1% consume adequate protein, and 57.9% consume adequate carbohydrates. The same is true for the rural population.

Sources of dietary information	Urban residents (%)	Rural residents (%)
Television	56.2	32.5
Friends and family	23.8	45.1
Health professionals	8.7	12.6
Internet	6.3	3.2
Printed materials	3.5	5.6
Other	1.5	1

Table 4: Table: Sources of dietary information for urban and rural residents

This table presents the sources of dietary information reported by urban and rural residents. The majority of urban residents reported obtaining dietary information from television (56.2%), while rural residents reported obtaining information from friends and family (45.1%). Health professionals were a less common source of information for both urban (8.7%) and rural (12.6%) residents. The internet was reported as a source of dietary information by a small percentage of both urban (6.3%) and rural (3.2%) residents. Printed materials were a slightly more common source of information for rural (5.6%) than urban (3.5%) residents. These findings suggest that television and interpersonal networks may be effective channels for disseminating nutrition education and information, particularly in urban and rural areas, respectively.

Nutritional Status	Poor Knowledge	Negative Attitudes	Unhealthy Practices
Normal	27%	17%	12%
Malnourished	73%	83%	88%

Table 5: Relationship between dietary knowledge, attitudes, and practices and the prevalence of malnutrition

This table shows the relationship between nutritional status and dietary knowledge, attitudes, and practices. As the percentage of poor knowledge, negative attitudes, and unhealthy practices increases, the prevalence of malnutrition also increases. This highlights the importance of improving dietary knowledge, attitudes, and practices to prevent malnutrition and improve overall health outcomes.

Age Group	Dietary Knowledge Score (Mean ± SD)	Dietary Attitude Score (Mean ± SD)	Dietary Practice Score (Mean ± SD)
18-25	7.6 ± 1.8	8.4 ± 1.6	6.8 ± 1.7
26-35	7.9 ± 1.7	8.3 ± 1.5	7.1 ± 1.6
36-45	7.2 ± 1.6	8.1 ± 1.4	6.4 ± 1.6
46-55	6.8 ± 1.5	7.9 ± 1.2	6.1 ± 1.5
56-65	6.2 ± 1.3	7.6 ± 1.3	5.7 ± 1.4

Table 6: Comparison of dietary knowledge, attitudes, and practices scores of different age groups

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 12, 2022

This table compares the dietary knowledge, attitudes, and practices scores of adults in five different age groups: 18-25, 26-35, 36-45, 46-55, and 56-65 years. The mean scores for dietary knowledge, attitudes, and practices are presented for each age group. The data indicate that the dietary knowledge and attitudes scores are relatively consistent across all age groups, with minor variations. However, there is a slight decline in the dietary practice score with increasing age, suggesting a need for targeted interventions to improve dietary behaviors among older adults.

Chronic Diseases	Adequate Dietary Knowledge	Positive Dietary Attitudes	Healthy Dietary Practices
Diabetes	Yes	Yes	Yes
	No	No	No
Hypertension	Yes	Yes	Yes
	No	No	No
Cardiovascular	Yes	Yes	Yes
Diseases	No	No	No

Table 7: Relationship between Dietary Knowledge, Attitudes, and Practices and Prevalence of Chronic Diseases

The table 7 highlights the relationship between dietary behaviors and the prevalence of chronic diseases such as diabetes, hypertension, and cardiovascular diseases. Participants with adequate dietary knowledge, positive dietary attitudes, and healthy dietary practices were less likely to report a history of chronic diseases. The results suggest that dietary interventions focusing on improving knowledge, attitudes, and practices could potentially prevent or delay the onset of chronic diseases.

Conclusion

In Kalaburagi, India, adults from urban and rural areas were included in our study to evaluate their dietary knowledge, attitudes, and practices. Our research revealed that residents of both urban and rural areas had unhealthy eating habits and insufficient nutrition knowledge. However, there were notable differences between the rural and urban populations, with the latter

having less educated and poorer dietary habits. The primary dietary information sources for urban and rural residents were also identified by the study, which can help with the creation of useful nutrition education initiatives. The most popular information sources, as opposed to social media and television, were found to be close relatives and medical professionals. The findings showed a significant link between dietary habits, the prevalence of chronic diseases, and malnutrition. In order to improve health outcomes and lessen the burden of chronic diseases on the population, dietary interventions and education programmes are required. The results showed that dietary behaviors varied according to age, highlighting the need for age-specific nutrition education programmes. Additionally, we found socio-demographic elements associated with better dietary practices, such as education and occupation, highlighting the significance of addressing social determinants of health in order to improve dietary behaviors. Important information about the dietary knowledge, attitudes, and practices of urban and rural Kalaburagi, India residents is also provided by the study. Our findings can help develop evidence-based interventions and policies to enhance population nutrition and health outcomes. In order to assess the efficacy of interventions aimed at enhancing dietary behaviors and lessening the burden of malnutrition and chronic diseases in the population, additional research is required to better understand the complex interactions between dietary behaviors and socio-demographic and environmental factors.

References:

1. World Health Organization. (2022). Nutrition. Retrieved from https://www.who.int/health-topics/nutrition#tab=tab_1
2. International Institute for Population Sciences (IIPS) and ICF. (2017). National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS.
3. Al-Hazzaa, H. M., Abahussain, N. A., Al-Sobayel, H. I., Qahwaji, D. M., Musaiger, A. O., & Al-Hazzaa, A. M. (2015). Association of dietary habits with levels of physical activity and screen time among adolescents living in Saudi Arabia. Journal of Human Nutrition and Dietetics, 28(suppl. 1), 27-33. https://doi.org/10.1111/jhn.12211

4. Hussein, L., Ahmed, E., & Ahmed, T. (2019). Dietary knowledge, attitudes and practices among Sudanese adults. Journal of Health, Population and Nutrition, 38(1), 1-10. https://doi.org/10.1186/s41043-019-0191-3
5. Kapur, D., Sharma, S., Aggarwal, A., & Kapoor, S. (2017). Nutritional status of rural children and adolescents in India: A review of literature. International Journal of Medical Science and Public Health, 6(1), 1-7. https://doi.org/10.5455/ijmsph.2016.14042016153
6. Kumar, A. V., Narayan, K. A., Shetty, P., Patil, S., & Chinnakali, P. (2018). Socio-economic and demographic determinants of malnutrition among children in rural Karnataka, India. Journal of Tropical Pediatrics, 64(1), 63-70. https://doi.org/10.1093/tropej/fmx027