

<https://doi.org/10.33472/AFJBS.6.6.2024.5813-5818>



African Journal of Biological Sciences

Journal homepage: <http://www.afjbs.com>



Research Paper

Open Access

Mindfulness of Nutritional Knowledge and Food Hygiene Practices on the Health among Young Adults

Garima Singh¹, Jaya Bharti^{2*}, Chanvi Dua³

¹Department of Nutrition and Health, G.D. Goenka University, Haryana, India.

^{2*}Department of Medical Lab Technology, G.D. Goenka University, Haryana, India.

³ Department of Nutrition and Health, G.D. Goenka University, Haryana, India.

Corresponding Email- jaya.nautiyal@gmail.com

Article Info

Volume 6, Issue 6, June 2024

Received: 17 April 2024

Accepted: 27 May 2024

Published: 20 June 2024

doi: [10.33472/AFJBS.6.6.2024.5813-5818](https://doi.org/10.33472/AFJBS.6.6.2024.5813-5818)

ABSTRACT:

Diet and nutrition play a major role in preserving health and preventing disease. A daily dietary nutrient intake level that is sufficient to meet the nutrient requirements of 97-98% of healthy individuals in a particular life stage and gender group is known as the recommended dietary allowance (RDA), according to ICMR-NIN (2020). Micronutrients are the essential vitamins and minerals that are required for all normal cellular and molecular functions and are obtained through diet. The World Health Organization (WHO) defines "micronutrients" as substances that are required by the body in minuscule amounts for the regulation of vital functions. This study has been employed a quantitative approach, to observe the knowledge of nutrition, food hygiene practices and how these impact on health among young adults ranging from 18 to 45 years of age from Delhi. Participants completed a questionnaire assessing Nutritional Knowledge, dietary practices and food hygiene practices in order to obtain their role in overall health. It was clear from the population inputs, which were collected as a pie chart, that most people have a reasonable understanding of what constitutes a healthy diet. A whopping 79.4% of people do not skip breakfast in the morning, which is crucial to reviving the body's metabolism following a lengthy night of fasting. According to the survey's results, half of the population knew a fair amount about nutrition. It was clear that 50% of people were aware of the proper daily intake of fats, proteins, and carbohydrates; nearly 93% of them were aware that adding fiber to the diet is beneficial; approximately 78% of people were aware that protein is necessary for muscle growth; and approximately 70% of people were aware that packaged foods should not be consumed. By the end of the study, it was concluded that there is a direct link between food habits, nutritional awareness, food safety precautions, and health. This research emphasized on studying the dietary pattern, nutritional knowledge and food hygiene practices among individuals for good health. Further research and interventions are warranted to enhance nutritional knowledge, dietary practices and ultimately promote healthier lifestyles among the target population.

Keywords: Nutritional knowledge, Food hygiene practices, Health, Dietary Practices.

© 2024 Garima Singh, This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made

1. Introduction

Maintaining health and preventing disease are largely dependent on diet and nutrition. According to ICMR-NIN (2020), the recommended dietary allowance (RDA) is a daily dietary nutrient intake level that is adequate to meet the nutrient requirements of 97-98% of healthy individuals in a specific life stage and gender group. The essential vitamins and minerals needed from the diet to support all regular cellular and molecular functions are referred to as micronutrients. According to the World Health Organization (WHO), "micronutrients" are substances that the body needs in extremely small amounts to regulate essential functions.

Among the many things that can lead to a healthy lifestyle are good eating habits. On the other hand, consuming a lot of cereals and legumes along with little dairy, fruit, or vegetable intake can lead to nutrient imbalances and micronutrient deficiencies. Bad eating habits combined with risk factors for physical activity can lead to poor health. A person's understanding of nutrition has an impact on their diet. It has been demonstrated that nutrition knowledge (NK) is crucial in promoting wholesome eating practices and guaranteeing that dietary requirements are satisfied at every stage of life. Understanding dietary requirements make it easier to make food choices that improve wellness and health by avoiding consuming too many or too few nutrients. The first logical steps in changing eating habits are educating the public about healthy eating practices and raising their awareness of the significance of eating foods that are high in nutrients. However, since there is a "very weak" correlation between knowledge and behavior, raising awareness does not always translate into appropriate action.

It is common knowledge that individuals from various parts of the nation have varying dietary preferences. The fact that we all experience food differently as we age is one reason for the wide range of food preferences. With the exception of the natural factors already mentioned, most of our food preferences are learned through gusts, and there are many different ways to learn about food. It has been demonstrated that introducing new foods on a sporadic basis can enhance one's dislike for initially disliked foods. Additionally, the effects of various sugar statement formats on people's perceptions of food categories—such as yoghurts, ice creams, cookies, and breakfast cereals—are methodically investigated. Since each person's eating habits are inextricably linked to the chain connecting humans, food, and environment, there is an increasing interest in analyzing dietary patterns of individuals for sustainable environmental development. Longevity and better health may result from following healthy eating habits. If not, it causes needless fat accumulation and serious health problems that are harmful to people's health.

A healthy nation must first have a healthy population of women. Food is a fundamental human need and a requirement for living a healthy life. An appropriate diet is necessary to prevent the very beginning of life for healthy development, growth, and continued activity. The population's nutrition and health are primarily determined by food production and distribution. The information gap is a significant component of the nutrition gap. One of the main reasons why people do not eat enough is ignorance. In many nations, chronic diseases linked to diet, undernutrition, obesity, and vitamin and mineral deficiencies coexist side by side. Regardless of the availability of food, it is critical that people understand how to use what they have as effectively as possible. Guarantee dietary health. People must be able to obtain enough food that is of high quality, understand what makes a healthy diet, and be motivated to make wise food decisions in order to be sufficiently fed. One important source of information about nutrition is nutrition education. It supports the growth of personal skills and the drive to adopt healthy eating habits, as well as the availability of a wide range of nutrient-dense foods and an increased understanding of their nutritional value.

Objectives

1. To analyze dietary practices among young adults.
2. To observe the level of nutritional knowledge among young adults.
3. To obtain the insights about the food hygiene practices as followed by young adults.
4. To analyze the effects of dietary practices, nutritional knowledge and food hygiene practices on health.

2. Methodology

The research methodology used in this research is the quantitative approach. Specifically, the proposed study will use an exploratory approach to investigate the level Nutritional Knowledge, good hygiene practices and its relationship with health. A sample of 1000 people aged between 18-45 were selected for the survey. The participants were asked to respond to a questionnaire that will include Nutritional knowledge, dietary practices and food hygiene practices. After collecting the data, it was analyzed using descriptive statistics.

Research Design

The research design for this study involves a quantitative approach with an exploratory aim to investigate the relationship between the level of Nutritional knowledge, food hygiene practices and health among 1000 adults aged between 18- 45 years from Delhi. Data will be collected through a questionnaire encompassing Nutritional knowledge, Food hygiene practices, and health. Descriptive statistics will be employed to analyze the data, providing insights into the interplay between these variables. Ethical considerations, such as informed consent and confidentiality, will be ensured throughout the study.

3. Results and Discussions

Objective 1. To analyze the dietary practices among young adults.

Based on the inputs as obtained from the population in the form of pie chart it is evident that people have a fair idea of healthy dietary habits. The population that does not fail to have breakfast in morning accounts about 79.4% which is important to jumpstart the metabolism of the body after the long fasting hours during the night. Moving ahead, approximately 50 percent of the population consumes tea with their meals which is not a right practice as it contains compounds called tannins that can bind to iron in food, making it less available for absorption by the body. Talking about fruit consumption, nearly 80% of the population prefers to consume fruits out of which 50% of the people consume at least one serving a day which is good as they promote heart health, boost immunity, aid in weight management, and help prevent chronic diseases. In addition to this, it is observed that only 25% of the total population consume sweets after the meals whereas approximately 70% of the population has voted no or rarely which is satisfactory as it may lead to overeating and contribute to weight gain or other health issues. Desserts are often high in sugar, refined carbohydrates, and unhealthy fats, which can lead to spikes in blood sugar levels and contribute to energy crashes later on. Furthermore, the percentage of the population which never skips any meal of the day is quite low i.e. about 18.6% and about 50 percent of the population ends up skipping one or the other meal (28.8% breakfast, 32.9% lunch and 28.2% dinner) which is not a healthy dietary practice as skipping meals can lead to nutrient deficiencies, low energy levels, increased hunger and overeating, blood sugar imbalances, slowed metabolism, and impaired cognitive function, negatively impacting overall health and well-being. Additionally, the daily water consumption of 80% of the population is not adequate and a large amount of

population often consumes food outside. Hence, we can conclude that people need to change certain dietary practices in order to maintain health and wellbeing in the long run.

Objective 2. To Observe the Level of Nutritional Knowledge Among Young Adults.

The results obtained through the survey suggests that half of the population has fair knowledge about nutrition. As it is evident that 50% of the population knows about the right proportion of carbohydrates, protein and fats to be consumed on daily basis; nearly 93% of them knows that fiber is healthy to be added in the diet; about 78% people knows that protein is needed to build muscle and about 70% of the population is aware about the packaged food items that they are not healthy to be consumed. Most of the people have enough knowledge about various nutrients and their sources as obtained in the results wherein, about 91% people knew that seeds, cheese, yoghurt, spinach and milk are rich in calcium; approximately 95% of them knows the rich source of vitamin C in fruits which is orange; more than 50% people are aware that milk provides good amount of vitamin A and nearly 73% of them are aware that spinach is a rich source of iron. Hence, most people have adequate nutritional knowledge. However, it is important to create more awareness among the population so that approximately all of the people have enough knowledge about nutrition and the right dietary practices can be opted for a better living and healthy future.

Objective 3. To Obtain the Insights of Food Hygiene Practices as Followed by Young Adults.

The data obtained suggests, people does not have enough knowledge about healthy food hygiene practices. However, some have basic information about it as 95% of the total population indulges in washing fruits and vegetables before cooking and 82.4 % of the total reads the food labels before purchasing packaged food items in order to check the presence of allergens, preservatives etc. In addition to this, 73.5% of total separates the food items based on their shelf life and keep them separately; nearly 64% of the population knows the right way to store dry spices which is in dark, cool and dry space to keep them safe and protected from any kind of contamination. Moreover, most of the population covers the cooked food always and 93% of the total wash their hand before and after consuming meals and up to 92% of people boils milk before consuming. Hence, the results are satisfactory and it can be said that most people have enough knowledge about good food hygiene practices.

Objective 4. To Analyze the Effects of Dietary Practices, Nutritional Knowledge and Food Hygiene Practices With Health

Yes, there is a strong correlation between dietary practices, nutritional knowledge, food hygiene practices, and health outcomes. Here's how each aspect contributes to overall health:

Dietary Practices: The foods we eat play a crucial role in determining our health outcomes. A diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats provides essential nutrients that support bodily functions, promote a healthy weight, and reduce the risk of chronic diseases such as heart disease, diabetes, and certain cancers. On the other hand, diets high in processed foods, sugar, unhealthy fats, and excessive calories can contribute to obesity, nutrient deficiencies, and chronic health conditions.

Nutritional Knowledge: Understanding the nutritional value of foods and making informed choices about what to eat is essential for maintaining optimal health. Nutritional knowledge helps individuals plan balanced meals that meet their nutrient needs, make healthier food choices, and avoid foods that may negatively impact their health. People with greater nutritional knowledge are more likely to follow dietary recommendations and adopt healthy

eating habits, leading to better Health outcomes.

Food Hygiene Practices: Proper food hygiene practices are critical for preventing foodborne illnesses and ensuring the safety of the food supply. This includes practices such as washing hands before handling food, storing and preparing food properly, cooking foods to the appropriate temperature, and avoiding cross-contamination. Adhering to food hygiene practices reduces the risk of foodborne pathogens such as bacteria, viruses, and parasites, which can cause gastrointestinal infections and other health issues.

Overall, individuals who follow healthy dietary practices, possess adequate nutritional knowledge, and maintain good food hygiene practices are more likely to experience better health outcomes, including reduced risk of chronic diseases, improved immune function, and overall well-being. Conversely, poor dietary choices, lack of nutritional knowledge, and inadequate food hygiene practices can increase the risk of nutrient deficiencies, foodborne illnesses, and other health problems. Therefore, promoting education and awareness in these areas is essential for supporting public health initiatives and empowering individuals to make healthier lifestyle choices.

4. Conclusion

The study aimed to understand the nutritional knowledge, dietary practices, food hygiene practices in order to understand its relationship overall health. The results depicted that people have fair knowledge about nutrition and food hygiene practices. However, there is still scope of more awareness that needs to be created among population. This implies that healthier eating practices and improved weight control can result from having a solid understanding of nutrition and its effects on health. Understanding nutrition is essential for encouraging balanced eating and making well-informed food choices, both of which can help maintain a healthy weight. These results emphasize how crucial it is to follow a healthy, balanced eating schedule in order to maintain health.

To recapitulate, the finding suggests more awareness can influence young adults in order to make the right choices that can be fruitful for overall health thereby making the nation healthy. This will make benefit the upcoming generations and make individuals healthier.

Limitations

The data collected in this study relied on self-report measures, such as questionnaires and recall-based assessments. Self-report measures are subject to recall bias and social desirability bias, which may affect the accuracy of the reported nutritional knowledge, dietary behavior and physical activity levels.

5. References

1. Deepa Pandit-Agrawal, Anuradha Khadilkar, Shashi Chiplonkar, and Vaman Khadilkar (2018). Knowledge of nutrition and physical activity in apparently healthy Indian adults.
2. Dr. Anita Y. Nawale, Dr. Geeta Shiroor, Mrs. Archala Khemnar (2022). An Exploratory Study to Assess the Knowledge and Attitude Regarding the Dietary Practices in Prevention and Management of Hypertension among the Homemakers of Pune City, India.
3. Gita J. Bhimani, M. K. Bariya and J. H. Rathod (2020). Knowledge Regarding Food and

- Nutrition among Farm Women.
4. Kalyani Konch and Dr. Juliana Sarmah (2023) Knowledge of homemakers of Dhemaji district of Assam regarding foodhygiene.
 5. Kiran S. Sangwan, Vikas D. Kshirsagar, Malangori A. Parande, Nandkumar M. Salunke, Kinjal H. Solanki, Muralidhar P. Tambe, Dipali Pundkar (2020) Knowledge, attitude and practices regarding nutrition among pregnant females visiting the antenatal care outpatient department of a tertiary care hospital, Pune.
 6. Paromita Banerjee, G. Bhanuprakash Reddy, Hrusikesh Panda, Kiran Kumar Angadi, Thirupathi Reddy, and SubbaRao M. Gavaravarapu (2023). Diets, Lifestyles and Metabolic Risk Factors among Corporate Information Technology (IT) Employees in South India.
 7. Permani C. Weerasekara, Chandana R. Withanachchi, G. A. S. Ginigaddara, and Angelika Ploeger (2020). Food and Nutrition-Related Knowledge, Attitudes, and Practices among Reproductive-age Women in Marginalized Areas in Sri Lanka.
 8. Phyrnailin wahlang, Chandrama Baruah (2020). A Study on Assessment of Nutritional Knowledge, Attitude and Practice (Kap) Of Gym Members in Guwahati, Assam.
 9. Richa Soni, Vidhi Shah, Shweta Kapadia, Nehal Chavda, Tarun Yog (2021). The Medical Management of GastroesophagealReflux Disease: A Narrative Review.
 10. Richa Soni, Vidhi Shah, Shweta Kapadia, Nehal Chavda, Tarun Yogi (2014). Knowledge of Recommended Dietary Allowances for Micronutrients Among Health Professionals of Ahmedabad City,India
 11. Singh, G., Bala, S., Rastogi, M., Noviar, R., Naveel, T., Ramanathan, T., & Kumar, S., A Comprehensive look of renal calculi in kidneys: A review (2022) *NeuroQuantology* 20 (5) 4404-4412.
 12. Sudhir K. Soam B. S. Yashavanth Thammi Raju Dhumantarao Balakrishnan (2023). Factors influencing dietary patterns among the youth from higher educational institutions in India.
 13. Vinoth Gnana Chellaiyan, Jasmine, L. Fasna, Loganathan, Sadhu Venkata Mallika (2018) Food safety awareness and food handling practices among rural population of Tamil Nadu