

Nutritional Awareness and Dietary Practices among Adults Aged 40 and Above: A Cross-Sectional Analysis of Knowledge, Behaviour and Barriers

Research Article

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Abstract

Background: With aging, changing dietary needs and poor nutrition increase the risk of lifestyle diseases. Awareness alone is insufficient, as barriers like lifestyle, affordability and misinformation hinder healthy eating.

Aim: The aim of this study was to assess the level of dietary awareness and nutrition related behaviour among adults focusing on knowledge of macronutrient recommendations, healthy dietary practices and barriers to adopting a nutritious diet.

Methods: A descriptive cross-sectional study was conducted using a self-structured questionnaire administered both in-person and via google form for wider reach. A total of 150 male and female participants, willing and able to read and write, aged 40 years and above, meeting the selection criteria, were recruited from the general population via convenient sampling. The questionnaire aimed to examine participants demographic profile, knowledge of macronutrient requirements, awareness of recommended sugar intake, dietary behaviour and barriers such as affordability and time constraints for cooking.

Results: In terms of nutritional knowledge, 56.7% (n = 85) of the participants knew the recommended protein intake, while 65.3% (n = 98) understood the difference between good and bad fats. Additionally, 53.3% (n = 80) were aware of the recommended daily sugar intake limit. Regarding dietary behaviours, a significant majority of participants (84.7%, n = 127) preferred home-cooked meals, whereas only 15.3% (n = 23) reported a preference for fast food. Furthermore, 44.7% (n = 67) of participants followed a structured dietary plan such as low-carb or high-protein diets. As for the barriers to healthy eating, 23.3% (n = 35) of the participants found healthy food unaffordable and 34.0% (n = 51) reported lacking the time to cook nutritious meals.

Conclusion: The study found gaps in dietary knowledge and behavior among adults over 40, highlighting the urgent need for nutrition education in public health programs and affordable access to healthy foods.

Keywords: Dietary behaviour; Healthy diet; Macronutrients; Nutritional awareness

Introduction

Optimal growth and development of the entire body system is heavily reliant on adequate nutrition. Diets are primarily composed of macronutrients such as proteins, fats and carbohydrates and micronutrients such as calcium, phosphorus and vitamin D. [1]

Nutritional intake is also critically associated with the onset,

progression and management of cardiovascular diseases. A balanced and nutrient-rich diet is widely recognized as a fundamental preventive measure against cardiovascular conditions.[2]

Establishing and maintaining a healthy lifestyle during the transition from middle age to older adulthood significantly enhances longevity, improves health outcomes and fosters the potential for healthy ageing.[3]

In this context, older adults are particularly advised to consume a balanced, nutrient-dense diet, as nutritional deficiencies have been strongly correlated with increased morbidity and mortality. Normal ageing is accompanied by physiological changes that affect dietary requirements and body composition, including increased adiposity, decreased muscle mass and reduced total body water all of which lower caloric needs.[4]

In response to the rising prevalence of diet-related illnesses worldwide, numerous public health initiatives have been launched to promote nutritional literacy and encourage healthier dietary behaviours.[5]

However, previous studies have revealed a notable disparity between perceived and actual dietary intake. This discrepancy implies that a large number of people overestimate how nutritious their eating patterns are, which lowers their drive to adopt healthier eating practices. These false beliefs may have a significant impact on health outcomes.[6]

Healthcare systems face challenges from population aging and rising life expectancy, with middle-aged and older adults playing a crucial role in community well-being. Westernized eating habits and limited nutritional awareness hinder healthy aging and increase chronic disease risk. Since behaviour change is complex, knowledge alone is insufficient; interventions must consider personal, social, gender and age-related factors. Promoting a shift toward plant-based diets requires tailored strategies rather than a one-size-fits-all approach. [7,8,9,10]

A thorough understanding of the reasons why people participate in unhealthy behaviours or refrain from adopting healthy ones is necessary to engage people in midlife health promotion activities and guide the development of successful interventions that take into account their unique circumstances.[11]

Accordingly, the purpose of this study was to assess the level of nutritional awareness, dietary behaviours and barriers to adopting a healthy diet among adults aged 40 years and above, with particular emphasis on knowledge of macronutrient recommendations, adoption of healthy eating practices and identification of challenges such as affordability and time constraints that hinder the implementation of a nutritious diet.

Material and Methods

A descriptive cross-sectional study was conducted from May 2025 to June 2025, involving a total of 150 male and female participants, willing and able to read and write, aged 40 years and above, meeting the inclusion and exclusion criteria were recruited from the general population through convenient sampling. The study was conducted both in-person at Outdoor Patient Department (OPD), University College of Physiotherapy, Faridkot and through online google forms for wider reach. Participants were excluded if they were experiencing an acute illness at the time of the study, had any diagnosed cognitive impairment or were unwilling to participate. All selected participants were informed about the nature and purpose of the study and informed consent was obtained prior to their participation. The participants in this study were not from a nutritional background.

They were recruited from the general population, aged 40 years and above and represented lay individuals without formal training in nutrition or dietetics. This approach was adopted to assess the general awareness, dietary behaviours and barriers related to nutrition among community dwelling adults rather than professionals with specialized knowledge.

Data was collected using a self-structured questionnaire which aimed to examine the participants demographic information (age and gender), nutritional knowledge (awareness of macronutrient requirements, understanding of good and bad fats, recommended sugar intake levels), dietary behaviour (frequency of fast food consumption, preference for home-cooked meals and use of structured dietary plan i.e. intermittent fasting or low-carb/high-protein rich diet) and barriers to healthy eating such as affordability of healthy food and time constraints for cooking. The google form was disseminated over a period of 3 weeks through email and social media platforms allowing them to voluntarily participate and submit their responses. Only one response per participant was allowed. After gathering the responses, data was exported to Microsoft Excel and analysed through statistical software and descriptive statistics (frequency, percentages) were calculated.

Results

The data of 150 participants was analysed in the current study that examined the level of dietary awareness and nutrition-related behaviour among adults focusing on knowledge of macronutrient recommendations, healthy dietary practices and barriers to adopting a nutritious diet.

Discussion

The current study aims to assess the level of dietary awareness and nutrition related behaviour among adults aged 40 years and above focusing on nutritional knowledge and awareness of macronutrient recommendations, dietary practices and perceived barriers to adopting a nutritious diet. The results reflect a high concern regarding affordability and lack of time to prepare nutritious meals. In support of the current study, Sallis et al. (2012) examined how personal and

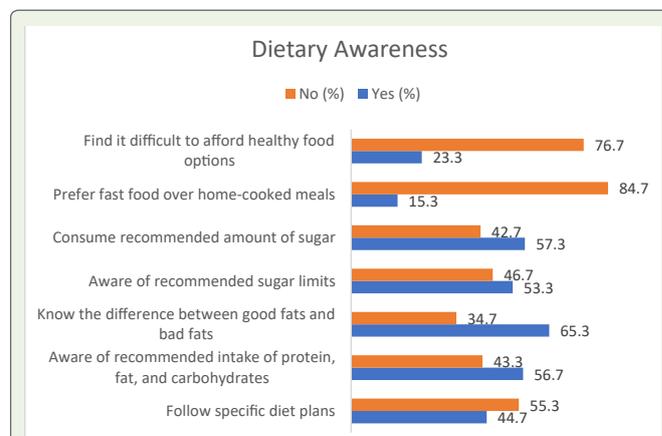


Figure 1: Graphical representation of dietary awareness and nutrition related behaviour

Table 1: Distribution of socio-demographic factors of participants

Variables	Category	No. of participants=150	Percentage (%)
Age Group(in year)	40-50	102	68
	50-60	41	27.33
	60-70	3	2
	Above 70	4	2.67
Gender	Male	81	54
	Female	69	46

Table 2: Frequency distribution of the items included in the questionnaire

Question	Sub-question	No. of participants =150	Percentage (%)
Nutritional Knowledge	1) Knew the recommended protein intake	85	56.7
	2) Understood the difference between good and bad fats	98	65.3
	3) Aware of the recommended daily sugar intake limit	80	53.3
Dietary Behaviours	1) Preferred fast food over home-cooked meals	23	15.3
	2) Preferred home-cooked meals	127	84.7
	3) Followed a structured dietary plan (e.g., low-carb, high-protein etc.)	67	44.7
Reported Barriers	1) Found healthy food unaffordable	35	23.3
	2) Lacked time to cook nutritious meals	51	34

environmental limitations, such as a lack of cooking time, financial difficulties and convenience can significantly impede the adoption of healthy behaviours. For dietary awareness to become impactful, it must be coupled with motivation, practical guidance and supportive environments that encourage healthier food choices. Another study conducted by Bauer Jet al. (2013) highlighted the significance of consuming enough protein to avoid sarcopenia, a disorder that is becoming more common as people age. This is consistent with the participant’s understanding of the function of protein in maintaining muscle mass. But awareness does not always result in action. The existence of people who are knowledgeable about healthy eating but do not regularly follow it indicates a gap that may not be filled by educational tactics alone. This demonstrates how difficult it is to turn awareness into action. These findings resonate with our data, reinforcing the need to address not just what people know, but also what prevents them from applying that knowledge in daily life.

The results also point to the need for more targeted nutrition literacy initiatives, especially ones that clarify common dietary misconceptions, emphasize reading food labels and promote balanced meal planning. As individuals age, their nutritional needs become more specific, yet many remain unaware of how to tailor their diet to address age related changes such as slower metabolism, reduced muscle mass or increased cardiovascular risk.

In essence, while dietary awareness among middle-aged and older adults shows encouraging trends, there remains substantial room for growth. Enhancing this awareness through community outreach, culturally sensitive education and practical interventions while simultaneously addressing structural barriers can lead to more sustained and meaningful improvements in health outcomes.

Limitations

Present study has several limitations that should be acknowledged. Firstly, the use of self-reported data on dietary behaviour may be subject to recall bias and social desirability bias, potentially compromising the accuracy of the information provided by participants. Secondly, the study was limited to literate individuals with access to the internet, which may exclude a significant portion of the population, particularly those from rural or underserved areas, thereby affecting the generalizability of the findings. Lastly, important factors like education, chronic illness, income and access to resources were not fully examined, which could have influenced the results.

Conclusion

The study revealed gaps in dietary knowledge and behaviour among adults over 40 years. It is crucial to encourage affordable access to nutritious food options and incorporate nutrition education into public health initiatives. Affordability of nutrient-dense foods, the simplification of dietary standards for ease of comprehension, and the encouragement of community-based meal planning programs are aspects that must be addressed in order to effectively support healthier eating habits among this population. Together these tactics have the potential to enable people to make knowledgeable food decisions and promote sustained advancements in public health.

Recommendations

Raising awareness about healthy eating practices can be greatly aided by setting up free nutrition counselling camps for individuals aged 40 years and above. Adopting balanced diets can be made easier and more convenient for people by promoting nutritious meal packages and recipes online. Working together with dietitians to hold workshops locally will offer helpful, neighbourhood based advice catered to individual dietary requirements. Furthermore, lowering financial barriers and increasing the accessibility of nutritious foods for vulnerable populations can be achieved by providing government subsidies for healthy food options in lower income communities.

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