

I. H. Supuni Bandara, R. W. B. D. Senura Rupasinghe

Scientific supervisor: senior lecturer M. E. Mazanik

*Educational Establishment
“Gomel State Medical University”
Gomel, Republic of Belarus*

ANALYZING DIETARY HABITS OF UNIVERSITY STUDENTS AS IMPORTANT FACTOR OF NUTRITIONAL BIOCHEMISTRY KNOWLEDGE

Introduction

Nutritional biochemistry is concerned with the connection between nutrients in food and their metabolism in the body to support physiological functions. Introduction Nutritional biochemistry is concerned with the connection between nutrients in food and their metabolism in the body to support physiological functions. When assessing the consumption of specific essential nutrients like vitamins and minerals, dietary habits are crucial [1]. Micro nutrient intake refers to the quantity of essential nutrients obtained through the diet. Examples of micro nutrients include vitamin A, vitamin C, iron, zinc, and calcium [3]. Nutritional biochemistry focuses on assessing the intake of micro nutrients in populations to determine if individuals are meeting their nutritional requirements and to identify potential deficiencies. These nutrients have a significant impact on energy production, cell growth, and immunity. Health outcomes are influenced by both dietary habits and micro nutrient intake, and they are key in preventing chronic diseases. Micro nutrient intake and dietary patterns have a significant influence on chronic diseases such as obesity, diabetes, cardiovascular diseases, cancer, and osteoporosis. When assessing the consumption of specific essential nutrients like vitamins and minerals, dietary habits are crucial. Micro nutrient intake refers to the quantity of essential nutrients obtained through the diet. Examples of micro nutrients include vitamin A, vitamin C, iron, zinc, and calcium [2]. Nutritional biochemistry focuses on assessing the intake of micro nutrients in populations to determine if individuals are meeting their nutritional requirements and to identify potential deficiencies. These nutrients have a significant impact on energy production, cell growth, and immunity. Health outcomes are influenced by both dietary habits and micro nutrient intake, and they are key in preventing chronic diseases. Micro nutrient intake and dietary patterns have a significant influence on chronic diseases such as obesity, diabetes, cardiovascular diseases, cancer, and osteoporosis [1, 4].

Goal

The aim of this research is to study the understanding of the importance of nutrition intake among people, study dietary habits, and overall health outcomes. It also aims to prevent nutrition deficiencies and improve overall health.

Material and methods of research

Our research involved randomly selecting 70 university students to conduct studies. Individuals who fall within the age range of 17–30, including male and female. They were asked to provide data through an online self-administered questionnaire using a Google form. And use of Scientific articles related to this topic.

The results of the research and their discussion

To assess the awareness of “nutritional biochemistry, which involves analyzing dietary habits, micro nutrient intake, and health outcomes”, randomly chosen 70 university students underwent this study. Among this participants 63.8% (44) are females and 36.2% (26) are

males. We examined students who are in age range of 17–30 . Students who are in 17–20 range is 28.6% (20), 20–25 range is 44.3% (31) and 25–30 range is 27.2%. (19). When discussing the role of macro nutrients (carbohydrates, proteins, fats) in human nutrition, 24.3% (17) of participants have basic knowledge about it, 65.7% (46) have intermediate knowledge, while 10% (7) have advanced knowledge. When considering the consumption of fruits and vegetables in a daily diet, 30% (21) estimated it as daily, 57.1% (40) three to four times per week, while 12.9% (9) rarely do so. When it comes to the regular intake of dietary supplements, 15.7% (11) of participants regularly use supplements while 40% (28) do not. When analyzing the participants who take supplements, the intake of multivitamins among them is 48.6% (34), omega 3 fatty acids 27.1% (19), probiotics 4.3% (3), while iron tablets, collagen, and vitamin D each have 1.4% (1). When analyzing the understanding of the importance of vitamins and minerals in maintaining overall health, the majority of participants (74.3% or 52) selected it as very important. 15.7% (11) voted for it as somewhat important, while 10% (7) are not sure about it.

When it comes to the concept of nutrient absorption, nearly half of the participants (51.4% or 36) said that they have heard about it but need more information. 34.3% (24) of the participants said that they understand it well, while 14.3% (10) are not familiar with it. More than half of the participants (57.1% or 40) have heard of the term “metabolic syndrome” and its relationship to nutrition and health, but are not sure about the details. 21.4% (15) of the participants are very familiar with it, while the same number of participants (21.4% or 15) are not familiar with it at all. Nearly three-fourths (74.3% or 52) do not have any specific dietary restrictions or preferences. However, 15.7% (11) are vegetarian, 5.7% (4) are vegan, and 4.3% (3) are gluten-free. More than half of the participants [51.4% (36)] are trying to limit processed foods in their diet, 18.6% (13) actively avoid processed foods and additives, while 27.1% (19) are unsure about the impact. 58.6% (41) of participants think that nutritional biochemistry research can contribute to improving public health and preventing chronic diseases by educating about healthy eating habits. 57.1% (40) of participants think it can be done by sharing tips for a balanced diet. 29 (41.4%) think it can be achieved by providing personalized nutrition advice, while 22 (31.4%) believe it can be done by promoting the importance of nutrient – rich foods.

Conclusion

When considering the above results, we can conclude that awareness of healthy eating habits and the relationship between nutritional intake and health should be increased among people through education. Additionally, people should be educated about dietary supplements based on their diet, living area, and lifestyle. Overall, people should be more aware of macro nutrient intake, micro nutrient intake, and the health outcomes associated with these two factors.

LITERATURE

1. *Nutr; Eur J*. Optimal nutrition and the ever-changing dietary landscape / *Eur J Nutr* // A conference report. – 2017. – May – Vol. 56(Suppl 1). – P. 1–21.
2. Espinosa-Salas, Santiago. Nutrition: Micronutrient Intake, Imbalances, and Interventions / Santiago Espinosa-Salas; Mauricio Gonzalez-Arias. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan.
3. Verkaik, Janneke. Kloosterman Estimation of micronutrient intake distributions: Development of methods to support food and nutrition policy making / Janneke Verkaik // - 192 pages Thesis, Wageningen University, Wageningen, The Netherlands (2011) With references, with summaries in English and Dutch ISBN 978-90-8585-945-1
4. Mongez-Rojas, Rafael. Biochemical indicators of nutritional status and dietary intake in Costa Rican Cabécar Indian adolescents / Rafael Monge- Rojas, Mauro Barrantes, Ileana Holst, Hilda Nuñez- Rivas, Thelma Alfaro, Sara Rodríguez, Lowella Cunningham, Priscilla Cambronero, Lisbeth Salazar, and F.H. Herrmann // 2005 Mar;26(1):3-16.
5. ter Borg , Sovianne. Micronutrient intakes and potential inadequacies of community-dwelling older adults/: Sovianne ter Borg, Sjors Verlaan, Jaimie Hemsworth, Donja M. Mijnders, Jos M. G. A. Schols, Yvette C. Luiking and Lisette C. P. G. M. de Groot // A systematic review Published online by Cambridge University Press. – 2015. – Apr 28;113(8). – P. 1195–1206.