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K. A. D. A. D. K. Devindi, M. C. D. Perera

Scientific supervisor: Assistant Professor S. P. Tishkov

Educational Establishment
"Gomel State Medical University"
Gomel, Republic of Belarus

IMPACT OF DIETARY HABITS AND STRESS ON CARDIOVASCULAR DISEASE RISK AMONG UNIVERSITY STUDENTS: A CALL FOR PREVENTIVE LIFESTYLE INTERVENTIONS

Introduction

According to the WHO, an unhealthy diet and insufficient physical activity are the leading global risks to health. Dietary behavior is a modifiable factor in cardiovascular disease (CVD) prevention. Psychosocial stress can lead to changes in dietary patterns and under chronic stress conditions, high caloric and hyper palatable foods are preferred. Diet affects diverse cardio metabolic risk factors such as obesity, lipid blood profile, blood pressure, glucose-insulin homeostasis, endothelial health, adipocyte metabolism, cardiac function, metabolic expenditure, weight regulation, visceral adiposity, and the microbiome. Studies have demonstrated how chronic stress exposure increases susceptibility to diet-induced obesity, with induced spontaneous hyperphagia and a preference for highly-palatable food, rich in calories, trans fat, salt and sugar. The relationship between nutrition and stress on cardiovascular risk in university students is significant. Poor dietary habits, often influenced by stress and lack of information about nutrition, can lead to malnutrition or overnutrition, increasing the risk of preventable diseases [1, 2, 3].

Goal

The aim of this article is to assess the impact of nutritional habits and academic stress on cardiovascular diseases (CVD) among university students. Specifically the study seeks to provide a comprehensive understanding of how lifestyle and stress factors contribute to cardiovascular risk among university students.

Material and methods of research

The main material of this research was an online questionnaire developed with the help of Google Forms which comprised of questions on demographics, dietary patterns including having a balanced diet, consumption of fast foods, sugary drinks, excess salt as well as meal skipping behaviors and awareness. It involved 43 students of Gomel State Medical University above 18 years of age. Responses were collected anonymously to ensure confidentiality.

The results of the research and their discussion

From the responses obtained, the majority were between the ages of 21–26 (88.4%). Based on gender, 64.3% were female participants and male participants were 35.7%. Based on the dietary patterns it was revealed the majority which was 62.8% take only 1–2 servings of vegetables only while 2.3% of the students do not consume vegetables daily on average. 74.4% of the respondents consume fruits on a daily basis but 25.6% of respondents happen not to add any fruits to their daily diet. 55.8% of participants consume 1–2% of fast foods like hamburgers, pizzas, fried chicken, instant noodles, chips and Cheetos. On average 41.9% of them consume 1–3 sugary drinks, for example coca cola, soda, Pepsi and energy drinks while 27.9% take 4–6 sugary drinks, 2.6% take more than 7 per day while 27.9% do not consume any. Of the participants, 2.4% add excess salt to the meal almost always, 33.3% do often while 35.7% seem not to add excess salt rather limit its usage. But 69.8% of the respondents tend to skip their meals occasionally (1–2 times per week) while 25.6% skip meals frequently (4–6 times per week).

65.1% of participants spend less than 30 minutes per day on physical exercises, 23.3% spend 30–60 minutes while 11.6% spend more than one hour on physical exercises daily. 74.4% of respondents are aware of the risk factors of cardiovascular diseases such as hypertension, high cholesterol, diabetes, unhealthy diet and sedentary lifestyle but 25.6% are not. 51.2% have been tested for both cholesterol and glucose but 48.6% have not been. Results on impact of academic stress in the respondents reveals that 19% experience symptoms such as fatigue and headaches often (15–21 days per month), 42.9% (7–14 days per month), 31% rarely (1–6 days per month). 93% of participants are aware of the impact of stress on diet.

41.9% of the participants have a close blood relative (parent or siblings) with a history of heart attack or stroke before the age of 50–60.

Conclusions

The main risk factors for CVD among university students are physical inactivity and unbalanced diet. Poor dietary habits, including inadequate intake of vegetables and fruits less than the recommended, high consumption of fast foods and sugary drinks, and frequent meal skipping, were observed. Physical inactivity is prevalent, with most participants engaging in minimal exercise, further contributing to health risks. Academic stress was identified as a significant factor influencing diet and overall well-being. While many students are aware of the risk factors for cardiovascular disease, gaps in proactive measures, such as regular health screenings, remain evident. Additionally, a considerable proportion of students have a family history of cardiovascular conditions, emphasizing the need for early lifestyle interventions. These findings underscore the importance of promoting healthier dietary choices, regular physical activity, stress management, and increased awareness to reduce long-term cardiovascular disease risks in this population [4, 5].

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