

POTENTIAL RISK FACTORS FOR TYPE II DIABETES AMONG BSMU STUDENTS

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Relevance. Type 2 diabetes is most commonly diagnosed in people over 40 years of age. Meanwhile, recent studies indicate a change in the age at which this type of diabetes begins. Over the past 20 years, there has been a 3-fold increase in patients with diabetes mellitus. Diabetes has reached epidemic proportions in many developing economies, such as China and India. Type 2 Diabetes Mellitus in the Republic of Belarus accounts for 94 per cent of the total prevalence of diabetes. 240 million adults living with diabetes are undiagnosed. According to the World Health Organization 541 million adults are at increased risk of developing type 2 diabetes. The rapid socioeconomic change in conjunction with urbanization and industrialization are the major factors for the global increase in the diabetes epidemic. The increase in the number of overweight persons, lack of physical activity and high blood pressure in the youth environment makes it urgent to improve prevention programmes based on risk factors.

Aim. Assessment of the predisposition factors for Type II Diabetes among Belarusian State Medical University (BSMU) students.

Materials and methods. Survey was conducted during March 2023 among BSMU students (n = 50). The project involved 21-30 years old foreign students. The study used a standardized Finnish Diabetes Risk Score (FINDRISC) questionnaire as a screening tool to estimate risk of type 2 diabetes. It includes main information about age, body mass index (BMI), waist circumference, physical activity for more than 30 min every day, having health diet like vegetables and fruits etc. Survey results were provided remotely through Google forms. A database was formed and a statistical analysis of the obtained results was carried out, which are represented by absolute numbers of answers, relative values in percent (%)

Results and discussion. Based on the research results, it was found that 18.9% of study participants are overweight according BMI. Physical activity for 30 minutes every day was done by 90.6% and without any physical activity was 9.4%. 54.7% of respondents do not eat regularly vegetables and fruits. 3.8% of interviewed do take medications for high blood pressure and 3.8% had high blood glucose level which had been found during health check-ups, during any illness or during pregnancy. 28.3% of the participants does not have any immediate family or other relatives been diagnosed with diabetes whereas 34% of them have their parents, brother, sister or own child been diagnosed with diabetes and 37.7% have their grandparents, aunt, uncle, or first cousins been diagnosed with diabetes. According to the obtained results 6% of participants had been found moderate risk of developing diabetes over the next 10 years (about 1 of 6 will have diabetes). 20.4% of respondents had a slightly increased risk (about 1 in 25 will have diabetes) over the next 10 years.

Conclusion. The results of the analysis of having potential risk factors for Type II Diabetes for BSMU observed students made it possible to allowed to determine in 6% of young people the possible onset of type 2 diabetes at over the next 10 years. Management for this should be done by knowing the person's risk factor for the prevention and treatment of diabetes in the early stages.

References

1. Aravinda J. Risk factors in patients with type 2 diabetes in Bengaluru: A retrospective study. *World J Diabetes*. 2019 Apr 15;10(4):241-248. doi: 10.4239/wjd.v10.i4.241.
2. Global burden of type 2 diabetes in adolescents and young adults, 1990-2019: systematic analysis of the Global Burden of Disease Study 2019(*BMJ* 2022;379:e072385
3. Hu FB, Manson JE, Stampfer MJ, Colditz G, Liu S, Solomon CG, Willett WC. Diet, lifestyle, and the risk of type 2 diabetes mellitus in women. *N Engl J Med*. 2001 Sep 13;345(11):790-7. doi: 10.1056/NEJMoa010492.
4. Pradeepa R, Mohan V. Epidemiology of type 2 diabetes in India. *Indian J Ophthalmol*. 2021 Nov;69(11):2932-2938. doi: 10.4103/ijo.IJO_1627_21.