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**A GENDER-BASED ANALYSIS OF LIFESTYLE CHOICES INFLUENCING BMI
AMONG SECOND YEAR MEDICAL STUDENTS**

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Relevance. Recent epidemiological trends have also shown that the increasing prevalence of overweight and obesity is one of the major health concerns worldwide, contributing to a number of non-communicable health issues. The high intellectual demands that are a part of medical studies can interfere with regular eating habits, physical activities, and sleep, all of which are known to affect weight regulation. Lifestyle factors may also vary among the two genders, and these factors may modulate the association between lifestyle factors and body mass index (BMI). It is important to know these factors to design specific interventions among young and knowledgeable students.

Aim: to conduct a gender specific analysis of lifestyle factors such as meal frequency, physical activity, sleep duration influencing BMI among second-year medical students.

Materials and methods. A cross-sectional study was designed among 112 second-year medical students at the Belarusian State Medical University. Out of these, 67 were males (59.8%), and the remaining were females, totaling 45 (40.2%). The study excluded medical students with diagnosed renal disease, endocrine disorders, or chronic illness. Data were collected using a questionnaire to evaluate demographic details, current eating habits, level of physical activity, sleep satisfaction, anthropometric measurements, and the main reason for the current pattern of eating. The BMI was calculated using the standard formula, and grading was done according to the WHO grading. Statistical analysis was done using the JASP application. The results were found to be statistically significant at $p < 0.05$. Descriptive analysis was done using mean, standard deviations, and percentage. Pearson correlation coefficients were calculated to evaluate the correlation of lifestyle with BMI for both males and females.

Results and their discussion. Considering physical activity, Active males had lower mean BMI ($25.0 \pm 4.7 \text{ kg/m}^2$) than sedentary males ($27.0 \pm 5.1 \text{ kg/m}^2$) and active females had a lower mean BMI ($21.9 \pm 4.1 \text{ kg/m}^2$) than sedentary females ($24.4 \pm 4.7 \text{ kg/m}^2$). There was a statistically significant negative correlation between physical activity score and BMI for males ($r = -0.24$, $p = 0.05$) and females ($r = -0.32$, $p = 0.03$). Assessing meal patterns, males who ate 1 meal per day had a higher mean BMI ($26.4 \pm 5.1 \text{ kg/m}^2$) compared to those who ate 3 meals per day ($24.9 \pm 5.0 \text{ kg/m}^2$). Females consuming 1 meal per day had a higher mean BMI ($23.6 \pm 4.7 \text{ kg/m}^2$) compared to those consuming 3 meals per day ($21.0 \pm 1.5 \text{ kg/m}^2$). There was a weak negative correlation between meal frequency and BMI for males ($r = -0.12$, $p = 0.10$) and females ($r = -0.21$, $p = 0.16$) that had a visible trend, but not statistically significant. Males with inadequate sleep had a higher mean BMI ($26.2 \pm 5.2 \text{ kg/m}^2$) compared to those with adequate sleep ($25.9 \pm 5.3 \text{ kg/m}^2$) and females with inadequate sleep had higher mean BMI ($23.6 \pm 4.2 \text{ kg/m}^2$), compared to the females with adequate sleep ($23.3 \pm 5.2 \text{ kg/m}^2$). A visible weak negative correlation between sleep adequacy and BMI in both males ($r = -0.041$, $p = 0.70$) and females ($r = -0.092$, $p = 0.50$) although not statistically significant. This can be mainly due to the small sample size. The majority of both males and females indicated that time was their greatest barrier to living a healthy lifestyle.

Conclusions. This gender-based analysis shows how lifestyle has affected the BMI levels in both male and female medical students. Physical activity level impacts body weight of both genders, thus proving the significance of physical activity in avoiding obesity. The frequency of meals has a greater effect on males, thus showcasing the importance of rational diet in maintaining normal BMI levels. The percentage of overweight and obesity is alarming, and highlights the need of health care programs in universities. More extracurricular activities should be introduced to encourage students, especially female students, to be more physically active. Helping our future doctors maintain a healthy lifestyle should not be neglected by medical educators.