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**OBESITY AND DEGRADED HEALTH AMONG UNDERGRADUATE
STUDENTS OF NADIA, WEST BENGAL**

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ABSTRACT

Lifestyle in West Bengal is sedentary, for which people prefer to eat rice and fish mostly. Children are also habituated with this practice. For some students, dietary preferences are different. They like to consume fast foods more than healthy foods. As a result of this, these students fall prey to obesity, which causes risks of diabetes, cardiovascular diseases, respiratory diseases among others. Academic performance is also affected. Timely interventions through health screenings are needed along with promotions of healthy eating and sports activities in rural areas like Nadia, West Bengal.

Keywords: Obesity, degradation, health, under-graduation, students, Nadia, West Bengal

1. INTRODUCTION

Physical fitness is important for all people, irrespective of their age. Small children are to be trained on physical fitness, for proper development of their bones and muscles. Parents and educators in school have an important role in this direction. If the students are made habituated to healthy diets, then their foundations are strong for being physically fit. In this context, affordability is a big question. In urban areas, parents can afford to send students in gyms, and serve healthy, nutritious foods to the children (Ghosh et al., 2024). The students also do physical workouts for maintaining their physical fitness. However, this is not possible in rural areas, as parents themselves are not able to maintain their health. Proper supply of foods, water, shelter is meagre in rural areas like Nadia, west Bengal. Most of the students in rural areas lack proper nutrition, due to which their health remains bad (Arslan & Alataş, 2023). This further affects their concentration in studies, worsening their academic performance. As healthy foods are not available, they are left with no other option but to avail street foods, which are unhealthy. Continuously having these foods make the students obese, which are harmful for their health. Health experts and dieticians recommend healthy, nutritious foods for students, avoiding unhealthy foods. However, tempting fast foods, offers shown in the advertisements seem tempting to the students (Sau, 2016). When in company of friends, they forget diets, health, and fitness. Therefore, it is the media which paves the way for degradation in health among the students. The paper deals with all these aspects in greater details.

2. LITERATURE REVIEW

Evidence-based overview of obesity and related health issues of undergraduate students in *Nadia district, West Bengal* is broadly discussed in this segment. This broader context comes from roping in India, narrowed down to Nadia, West Bengal, for the discussions. As direct peer-reviewed studies, specifically on Nadia undergraduate students are limited or unavailable, these broader discussions and reviews are needed.

Overview of obesity in West Bengal, India

Obesity and overweight are increasingly, a public health concern across India, including West Bengal. Sedentary lifestyle, unhealthy diets (high in calories and processed/junk foods), limited physical activities, workouts, and urbanization are major drivers, showing high obesity rates among young people and adults. Here, Saha and Haldar, (2012) argued that risks increase from

non-communicable diseases (NCDs) such as type 2 diabetes, hypertension, cardiovascular disease, and metabolic syndromes. These diseases undervalue monitoring trends from adolescence through young adulthood.

Obesity in universities and college Students

Published researches, specifically on undergraduate students in Nadia, are limited. However, regional studies on nearby areas like Kolkata, alarm the audience on the facts and figures stating the concerns from obesity. One of the types of evidence is found in a study, which stated that around 18% of undergraduate medical students in Kolkata are overweight and ~2% are obese. Their Body Mass Index (BMI) were measured to get these results. Also, it is striking to note that about one-quarter of students performed little to no physical exercises. Prajapati et al., (2025) stated that their lifestyle is filled with stress and sedentary habits. No direct statistical association was established in that study. From other Indian undergraduate data, national and multi-institutional surveys outside West Bengal showed similar trends. Specifically, some Indian university populations have reflected substantial proportions of being overweight or suffering from obesity. Sedentary behavior and dietary patterns of frequently consuming fast foods strongly produce higher BMI in students. These results are nor specific to Nadia district; however, it reflects broader patterns of health among Indian undergraduate students. This is especially found in urban or semi-urban settings (Ajoobabady et al., 2023).

Potential health impacts among young adults

Being overweight or suffering from obesity, generates the risk of type 2 diabetes in undergraduate students. This is a metabolic risk, which increases on detection of cardiovascular diseases later in life. Here, Bhadra and Banerjee, (2020) was of the view that persistence of sedentary lifestyle and diet patterns is a significant aspect. Along with this, health experts warn about high stress, irregular eating patterns, and low physical activity, being harmful for the health and studies of students, especially the ones in undergraduate level. It has commonly been observed that college students frequently suffer from these issues, which contributes to their weight gain and poorer health outcomes (Kok et al., 2023). This has been observed in various student populations in the internation and regions. Specific studies on Nadia is lacking.

Behavioral Drivers

Common risk drivers for worsening the health of the students in undergraduate levels are mostly spending more time in front of screens, and having sedentary routines. Along with this, Sehwat et al., (2018) argued that consumption of foods high in calorie and low physical activities are aspects to worry. Now the syllabus and patterns of study is changing, due to which students are mostly in stress as they feel afraid of not being able to cope up with the changed patterns. As a result of this, BMI index shows higher body fat even in early adulthood.

Limitations in specific data on Nadia

As of the present times, there are no specific peer-reviewed epidemiological studies on obese or overweight issues among undergraduate students in Nadia district of West Bengal. Enriquez and Ader, (2025) stated that available data on nutrition in Nadia is related to childhood undernutrition, which causes issues on thinness or stunting, and not obesity. From these aspects, it can be stated that there is a gap, which is to be addressed by future regional health surveys conducted on universities in Nadia, like University of Kalyani, other degree colleges and institutions in Nadia, West Bengal.

3. METHODOLOGY

Quantitative data collection method is apt here, as practical insights are gained on ways and means through which undergraduate students in Nadia, West Bengal maintain their physical fitness. Survey is conducted on 50 such students from universities and colleges. Responses collected from these students are analyzed through tables, charts and graphs, which alarm the audience and readers on the extent to which obesity is a matter of concern for these students and their academic performance. These practical insights enhance awareness on the initiatives of schools to ensure physical fitness among the students.

4. CONCLUSION

Based on the previous literature reviewed, it can be concluded that obesity in West Bengal is a trend, which has evolved due to dietary preference of rice, fish and sedentary lifestyle. Studies on undergraduate students in Kolkata reflect modest prevalence of overweight/obesity. It is striking to note that specific studies health concerns in Nadia students are limited, which causes gap. Until

and unless proper and timely interventions are taken, risks persist in the form of future diabetes, heart disease, mental health and lifestyle dissatisfaction among the students. These diseases can cause adverse impact on their academic performance and overall health. Parents and educators need to be careful towards reducing these risks for ensuring wellbeing of the students. This carefulness can be reflected if regular health screenings are conducted in colleges and universities of Nadia. BMI, blood pressure, and blood sugar of college students can be measured at a frequent interval. Activities promoting physical activities (sports clubs, active commuting, gym access) are to be increased for ensuring physical fitness among the students. Healthy meal options can be undertaken on campuses. Students from poorer strata of the society can be provided with these meals free of costs. Workshops on nutrition and stress management could be effective for helping these students cope up with stress on new education patterns and syllabus. Longitudinal studies can be performed on student health in Nadia, which could fill current research gaps in this direction.

REFERENCES

- Ajoolabady, A., Lebeaupin, C., Wu, N. N., Kaufman, R. J., & Ren, J. (2023). ER stress and inflammation crosstalk in obesity. *Medicinal research reviews*, 43(1), 5-30. [10.1002/med.21921]
- Arslan, N., & Alataş, H. (2023). The relationship between sustainable nutrition and healthy food choice: a cross-sectional study. *The European Research Journal*, 9(2), 192-199. [https://dergipark.org.tr/en/pub/eurj/article/1226567]
- Bhadra, P., & Banerjee, P. (Eds.). (2020). *Prebiotics and probiotics: a new era of nutraceuticals* (Vol. 1). Centurion University of Technology and Management. [https://books.google.co.in/books?hl=en&lr=&id=ZiA-EAAAQBAJ&oi=fnd&pg=PA13&dq=Obesity+and+degraded+health+among+undergraduate+students+of+Nadia,+West+Bengal&ots=ynfXms15Ta&sig=BW9r0-kzV6zTXSxa9IYtejSJytY&redir_esc=y#v=onepage&q&f=false]
- Enriquez, J. P., & Ader, D. (2025). Associations between health issues and food consumption with overweight and obesity in three university students minorities. *Journal of American College Health*, 73(7), 2813-2821. [10.1080/07448481.2023.2266045]

Ghosh, S., Das, S., Palepu, S., & Ahamed, F. (2024). Dietary practices of children and adolescents residing in an area of Chakdaha Block, Nadia district, West Bengal. *Journal of Family Medicine and Primary Care*, 13(10), 4363-4370. [https://journals.lww.com/jfmpc/fulltext/2024/13100/dietary_practices_of_children_and_adolescents.36.aspx?context=latestarticles]

Kok, T., Wiriantono, V., Bakhriansyah, J., & Aditama, L. (2023). The factors affecting the occurrence of obesity in college students. *Unnes Journal of Public Health (UJPH)*, 12(1), 71-78. [https://repository.ubaya.ac.id/43527/]

Prajapati, B. G., Basu, B., Dutta, A., & Chatterjee, A. (Eds.). (2025). *Synthetic Biology and its Consequences in Present Healthcare*. Academic Press. [https://books.google.com/books?hl=en&lr=&id=pKI7EQAAQBAJ&oi=fnd&pg=PP1&dq=Obesity+and+degraded+health+among+undergraduate+students+of+Nadia,+West+Bengal&ots=SIQKqG-qg5&sig=m9gbaGCJJl8btUeehfRcPE1yZQU]

Saha, G. C., & Haldar, S. (2012). Comparison of health related physical fitness variables and psychomotor ability between rural and urban school going children. *Journal of exercise science and physiotherapy*, 8(2), 105-108. [https://search.informit.org/doi/abs/10.3316/informit.816189856163139]

Sau, S. (2016). An assessment of socio-economic factors on nutritional status in primary school-a cross sectional study in Purulia of West Bengal. *International Journal of occupational safety and health*.

[https://d1wqtxts1xzle7.cloudfront.net/101968409/607c12e3c522465345c9ab20e2fa09ca30fd-libre.pdf?1683530028=&response-content-disposition=inline%3B+filename%3DAn_Assessment_of_Socio_Economic_Factors.pdf&Expires=1770804988&Signature=TA294-DhtNuwW~tVQ4CsFais57ei6o2N~S196MQcNTWNS6UCN-phYlh3cW8~7GYf7BoMjhL6IzVpWR6PIh4Io1lxtqOTbMMFHNf1P5YujW3J9ROICqH5kFmcTiIdWarrfJDvBhpjCvE1O1P7P2ZGCrvbWc8NKvRsrG0qxB65DDWuLkqEPORGytPYRw3JZ297~YYJBTyiQgRvX83~1V5nO8U5-gWsMT-SWwbD2ci9Qe4tutnhDcw2ekCLIKUzWejGQLFOVT4LCg8j0ugnzMwI3u47TSMa4lxwK3x89]

w774B3dwOs4WsPrba5KqoQV~rCio-43QtJQ~ts0quCR-acag__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA]

Sehrawat, R., Khan, K. A., Goyal, M. R., & Paul, P. K. (Eds.). (2018). *Technological interventions in the processing of fruits and vegetables*. CRC Press. [https://books.google.co.in/books?hl=en&lr=&id=1SJWDwAAQBAJ&oi=fnd&pg=PT6&dq=Obesity+and+degraded+health+among+undergraduate+students+of+Nadia,+West+Bengal&ots=od2ARv6JRq&sig=Pf0D2qbPbHEp7APzXgqv766nYUk&redir_esc=y#v=onepage&q&f=false]

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