



ASSESSMENT OF PHYSICAL ACTIVITY AMONG MEDICAL COLLEGE STUDENTS AND CORRELATING WITH BODY MASS INDEX.

General Medicine

Kesav Narayan. S FINAL year MBBS student, Saveetha Medical College And Hospital.

Dr. Vikranth. V* Assistant professor, Department of General Medicine, Saveetha Medical College And Hospital. *Corresponding Author

ABSTRACT

BACKGROUND: The great poet of Sanskrit literature says "SARIRA MADHYAM KALU DHARMASADHANAM" (for all our activities healthy body is important. That we should acquire by regular constant physical activities). This emphasises the importance of physical activity and physical inactivity leads to many complications such as obesity, diabetes(3). This study correlates the interrelationship between physical activity and body mass index among the medical college students. **METHOD:** A total of 100 medical college students took part in the study. A questionnaire were given to the students assessing their physical activity and their weight and height were recorded. **RESULT:** In the 100 students studied, it was seen that 45% of them have less physical activity and henceforth their body mass index was in the range of 25 to 30. (Obese). **CONCLUSION:** This study suggests that students who have less physical activity have a higher body mass index. Hence regular physical activity is needed to stay fit and healthy.

KEYWORDS

INTRODUCTION

Daily routine physical activity is a part and parcel of our life. Physical activity make our body fit and also helps us to enhance our efficacy in our routine. Globally, the leading cause of death are non communicable diseases.⁽¹⁾ The great Sanskrit saying "SWASTHE SHARIRAE SWASTAM MANAHA" (sound mind in a sound body), implies the importance of physical activity in our day to day life. Physical inactivity leads to dire consequences. The incidence of cardiovascular diseases a NCD, is on the rise.⁽²⁾ But, however assessment of physical activity is one of the most difficult tasks in epidemiologic research. Therefore, no exact definition of physical inactivity exists. So the only way of assessing the physical activity is by giving questionnaires.

Several prior studies⁽³⁾ assessed the impact of physical inactivity and the consequences of it such as obesity, diabetes, cardiovascular disease, hypertension and its effects on the end organs. Individuals who are more active and fit have lower risk of all cause mortality, some cardiovascular disease and low risk of obesity. Further more, a study conducted in Ghana⁽⁴⁾ postulated the relationship between physical activity, body mass index of university students, witnessed that physical inactivity is the main cause of increased BMI and its outcomes.

Generally, medical education can be stressful for students and have negative impacts on lifestyle habits such as poor physical activity⁽⁴⁾. They work more intellectually than physically. So we conducted a prospective study to find the correlation with the level of physical activity and the body mass index of medical college students.^(5,6)

METHODOLOGY

After research ethics board approval, this study was conducted in Saveetha Medical College Hospital, Thandalam, Kanchipuram, Tamilnadu, on students from first year to final year MBBS.

A total of 100 students took part in the study. Those who were willing to take part in the study were included. The study type is prospective study. The sampling method adopted was simple random sampling⁽³⁾. A structured questionnaire was used the study tool. The students were asked to fill the questionnaire which included questions such as

1. Name, year of study, height, weight to calculate their body mass index.
2. What do you generally do in your leisure time?
3. Do you have the habit of playing any sport?
4. How much time do you spend per day for walking as a part of your daily routine?
5. Do you have the habit of doing vigorous activity like running, swimming or aerobics?
6. Do you have the habit of jogging early morning?
7. In a week, do you get at least 2 to 3 hours to play any sport?

8. Do you practise yoga daily?
9. Do you feel physical activity is necessary for life.

A total of 18 questions were given to assess the level of physical activity among the medical college students.

The response of students were recorded and assessed.

RESULT

Demo Graphics

In the study of 100 medical college students, 20 students were in the age group of 18 years, 20 students were in the age group of 19 years, 10 students were in the age group of 20 years, 10 students in the age group of 21 years and 40 students in the age group of 22 and 23 years.

Each question in the questionnaire was awarded 1 point for positive response. In case of negative response, a score of 0 was awarded to each question. The height and weight was noted to calculate the body mass index.

It was observed that many of students spent most of their leisure time in social media and video gaming rather than going out and playing outside and engaging themselves in some kind of physical activity.

Table-1 : Activities Done In The Leisure Time.

PLAYING OUTSIDE AND OTHER FORMS OF PHYSICAL ACTIVITY	30 STUDENTS
SOCIAL NETWORKING	40 STUDENTS
VIDEO GAMING	30 STUDENTS

It can be seen from TABLE 1 that many of the students do not have the habit of playing any kind of sport outside and even if they have so, they don't get enough time playing that sport. It was also seen that many students spend much less time walking as a part of their daily routine.

Table 2 : Habit Of Doing Vigorous Physical Activity.

	YES	NO
Do you have the habit of doing vigorous activity like running, swimming or cycling?	20 Students	80 students

So it can be seen from TABLE 2 that only 20 students had the habit of running or swimming.

It also seen that about 45% of the students do not have the habit of going nearby shop by walk. This suggests that they lack in their physical activity.

Table 3: Practising Yoga Daily.

	Yes	No
Do you have the habit of practising yoga daily as a part of your routine	32	68

Table 4: Jogging Early Morning.

	YES	NO
Do you have the habit of jogging early morning?	35	65

Table 5: Awareness About Physical Activity.

	YES	NO
Do you feel physical fitness is necessary for life	80	20

It can be seen from TABLE 3 that only 32% of the students had habit of practising yoga as a daily routine.

It can also be seen from TABLE 4 that only 35% of the students had the habit of jogging early morning. This clearly shows the lack of physical activity among the students.

Even though the students had a good awareness about the physical activity and physical fitness from TABLE 5 they clearly lack in the practise.

Body mass index of all the students were calculated according to their height and weight. It was seen that about 45% of the students had body mass index in the range of 25 to 30. About only 20 students had BMI in the normal range. About 15 students had BMI in the range of 30 to 35. So, totally, about 45% of the students were overweight and about 15% of them were obese.

Each students were awarded a score according to their response and the body mass index was correlated to the scores obtained.

According to the scores obtained, each student were classified as no, mild, moderate and severe physical activity. About 10 students were in the no physical activity group. About 45 students were in the mild physical activity group, about 35 students were in the moderate physical activity group and only 10 students were in the severe physical activity group.

It was seen that those who had no physical activity had their body mass index in the range of 25 to 30. About 45 students who were classified based on the score obtained as mild physical activity had the body mass index in the range of 25 to 35. This clearly shows that physical activity is very much essential for the fitness of the body.

CONCLUSION

Regular physical activity and BMI within acceptable ranges are cardio protective and have an enormous positive impact.⁽⁹⁾ Earlier studies suggested that high BMI is associated with poor cardiovascular effects.⁽¹¹⁾ So this study clearly indicates that physical activity is must for everybody indiscriminating their profession.⁽⁶⁾ This point is even emphasized in Bhagavat Gita in many places. This study clearly suggests that even though the medical college students had good awareness about the physical fitness, they lack in the physical activity⁽⁸⁾. This is evident by the body mass index and the level of physical activity.

In conclusion, the results of this study showed correlations between physical activity and the body mass index among the medical college students. So comprehensive efforts should be applied to reduce the BMI by increasing the physical activity. No such studies were done on medical college students.⁽⁶⁾

REFERENCES

1. World health organisation, global status report on noncommunicable diseases 2010.
2. Mozaffarian D, Benjamin EJ, Go AS, Arnett dK, et al. Heart disease and stroke statistics-2015 update: a report from the American heart association. *Circulation* 2015; 131(4): e29-322. pubmed.
3. Eric Kwasi ofori, Seth kwadjo angmorterth, Relationship between physical activity, body mass index and lipid profile of students in Ghana.
4. Deasy C, Coughlan B, Pironom J, Jourdan D, Mcenanra PM. Psychological distress and lifestyle of students; implications for health promotion. *Health promotion International*. March 2015; 30(1): 77-87. Pubmed.
5. Goran MI, Reynolds KD, Lindquist CH. Role of physical activity in prevention of obesity in children. 1999; 23(suppl3): S18-S33.
6. Must, A and tybor, Dj (2005) physical activity and sedentary behaviour: a review of longitudinal studies of weight and adiposity in youth. *Int j obes* 29, S84-S96.
7. Robinson, TN (2001) television viewing and childhood obesity. *Pediatr clin north Am* 48, 1017-1025.
8. Assessment of physical activity among children and adolescents A review and synthesis Harold W.kohl, Janet E fulton Baylor sports medicine institute and Baylor college of medicine, Houston.
9. Craig, bandini LG, Lichtenstein AH, schaefer EJ. The impact of physical activity on lipids, lipoproteins and blood pressure in preadolescent girls. *Paediatrics* 1996; 98(3 pt 1): 389-95.
10. Hangstomer M, troiano RP, sjoström M, Berrigan D. Levels and pattern of objectively assessed physical activity a comparison between Sweden and the united states. *American journal of epidemiology*. 2010 171(10) 12-25.

11. Mora SL, Burning JE, Ridker P. Association of physical activity and body mass index with novel and traditional cardiovascular biomarkers in women. *JAMA*; 2006; 295(12): 1414-1419. Pubmed.