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ORIGINAL RESEARCH ARTICLE

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A Cross Sectional Study on Physical Activity Profile Among Undergraduate Medical Students in a Private Medical College

Challa Chaithanya[1], C. Kumar[2], Jyothi Conjeevaram[3]

Affiliation: 1Post Graduate, 2, Professor, 3. Professor and Head, Department of Community Medicine, Narayna medical College, Nellore. AP.

***Author for correspondence:** Dr. Challa Chaithanya, Post Graduate, Department of Community Medicine, Narayana Medical College, Nellore. AP. Email: chaiturebelss@gmail.com

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ABSTRACT

Background: WHO defines Physical activity as any bodily movement including during leisure time, for transport to get to and from places, or as part of a person's work produced by skeletal muscles that requires energy expenditure. Medical students play an important role in promoting health education to the patients starting with their clinical training years. The main objective of this study was to assess practice and patterns of Physical activity and to study the Barriers and Motivating factors for Physical activity among undergraduate medical students. **Objectives:** To assess the practice and patterns of Physical activity among undergraduate medical students of Narayana Medical College (NMC), Nellore.; To study the Barriers and Motivating factors for Physical activity. **Methodology:** A Cross sectional study was conducted among 6th Semester (MBBS Final Year Part-I) students of Narayana Medical College, Nellore, Andhra Pradesh for a period of one month i.e. April 2022 using a predesigned, semi structured questionnaire. Data was collected through Google forms, entered in Microsoft Excel and analyzed using "SPSS Version 25.0" software. **Results:** Out of 256 students, 179 students submitted their responses. 106 (59.2%) were females and 73 (40.8%) were males. 65 (36.3%) were currently practicing regular Physical activity out of which males are 41(63.1%) and females are 24 (36.9%). **Conclusion:** In our study, a smaller number of students were regularly practicing Physical activity. Less number of females were physically active when compared to males.

Key word: Physical activity, Medical students, Undergraduates, Non communicable diseases

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INTRODUCTION:

According to WHO Physical activity is defined as any bodily movement produced by skeletal muscle that requires energy expenditure. It has significant health benefits and plays a major role in the prevention of Non-communicable diseases. Lack of Physical activity has been identified as the fourth leading risk factor for global mortality (6% of deaths globally, WHO)[1]. Physical activity is one of the major lifestyle-related health determinants.

According to WHO statistics, 23% of adults more than 18 years of age and 81% of adolescents in the age group of 11-17 years were insufficiently active.[2,3] As the Physical inactivity increases non-communicable disease burden of the community, WHO has set up a global target of 10% relative reduction in the prevalence of insufficient Physical activity by the year 2025.[2]

The risk for chronic and non-communicable diseases increases with insufficient Physical activity. There is increased risk for developing Type II Diabetes Mellitus, Hypertension, Carcinoma and Mental health issues[4] and, insufficient Physical activity can be compared with Tobacco, Alcohol consumption and Obesity as a cause of reduced life expectancy.[1]

Health professionals who are physically active themselves are three times more likely to encourage Physical activity in their patients. Hence medical students play an important role in promoting health education to the patients starting with their clinical training years[5].

OBJECTIVES:

To assess the practice and patterns of Physical activity among undergraduate medical students at Narayana Medical College (NMC), Nellore.

To study the Barriers and Motivating factors for Physical activity.

METHODOLOGY:

A cross sectional study was conducted among 236 medical students studying 6th semester students (MBBS Final Year Part-I) in Narayana Medical College, Nellore, Andhra Pradesh. The study was conducted during the month of April 2022. The data was collected using a predesigned pretested questionnaire. The questionnaire included two parts. Part, one included the general characteristics of the participants, mainly gender, place of study and BMI. Part two included the information on Physical activity, mainly unmet practice of Physical activity, pattern of Physical activity, Motivating factors of Physical activity and Barriers to Physical activity. The questionnaire was prepared in Google forms and the link was sent to the participants through WhatsApp application and the participants were requested to respond within one week of receiving the request. All the responses were verified for completeness of information. Responses with incomplete information were excluded from analysis. The data was uploaded to Microsoft Excel for further analysis. The data was analyzed by calculating frequencies, percentages and by calculating Chi square values. Clearance was obtained from the IEC.

RESULTS:

Table 1: General characteristics of medical students (n=179).

Variables	Frequency	Percentage (%)
Gender		
Male	**73**	**40.8**
Female	**106**	**59.2**
Place of stay		
Hostel	125	69.9
Not in hostel	54	30.1
BMI(kg/m^2)		
<18.5	8	4.5
18.5-24.5	112	62.6
25-29.9	49	27.4
>30	10	4.8
Current practise of Physical Activity		
Yes	**65**	**36.3**
No	**114**	**63.7**

Out of 256 students, 179 students submitted their responses.

Table 1: 106 (59.2%) were females and 73 (40.8%) were males. 65 (36.3%) were currently practising Physical activity.

Fig.1: Gender & Physical Activity (n=179)

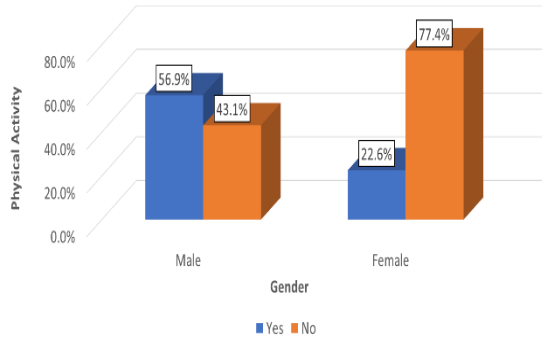

Fig 1: showing male students are more physically active than female students.

Fig.2: BMI & Physical Activity

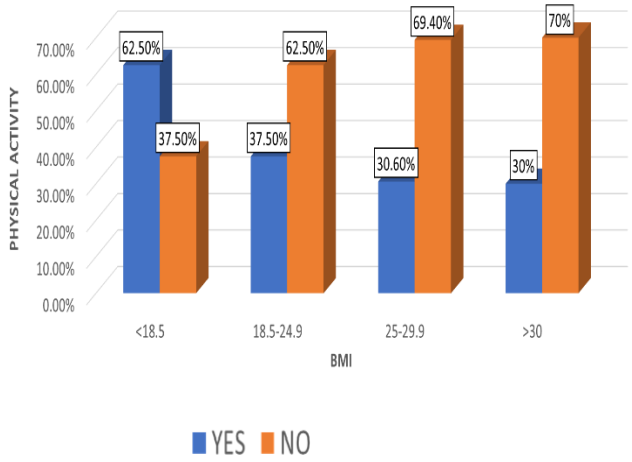

Fig 1: showing students with BMI <18.5 are more physically active than other groups.

Table 2. Most common pattern of Physical activity was outdoor games 44 (67.6%) followed by Jogging/fast walking 41 (63%).

Table 3: Most common Motivating factor was "To reduce stress and get peace of mind"48 (73.8%) and Barrier was " Don't have time" 86 (75.4%)

Table 2: Patterns of Physical activity (n= 65)

Pattern of Physical Activity[7]	Frequency & Percentage (%)*	
Outdoor games	**44**	**(67.6)**
Jogging/ fast walking	**41**	**(63.0)**
Swimming	4	(6.15)
Cycling	8	(12.3)
Gym	**28**	**(43.0)**
Skipping	7	(10.7)
Dancing	7	(10.7)
Aerobics / Exercise	24	(36.9)
Others	4	(6.15)

Table 3: Motivating Factors and Barriers For Physical Activity

Variable(s)	Frequency & Percentage (%)*	
Motivating factors (n=65)[8]		
To burn excess calories and reduce weight	40	(61.5%)
To reduce stress and get peace of mind	**48**	**(73.8%)**
To increase strength and stamina	46	(70.7%)
To increase muscle mass	32	(49.2%)
Barriers (n=114)		
Don't have time	**86**	**(75.4%)**
Affects studies	68	(59.6%)
Don't have space	36	(31.5%)
Don't know the reason	38	(33.3%)
Others	24	(21.05%)

DISCUSSION:

In the study conducted by Rao *et al.* (2012). The Physical activity was found more among boys as compared to girls (62% v/s 38%). Lack of time (60.5%), laziness (61.8%), and exhaustion from

academic activities (42%) were identified as important hindering factors among medical students who did not exercise.[6]

In the study conducted by Boopathirajan *et al*.(2019).the Physical activity was found more among male interns than female interns[7].In the present study, Physical activity is more among boys (56.16%) than girls (22.64 %),most common pattern of practicing Physical activity is 'Playing outdoor game(67.6%),Motivating factor for Physical activity is 'To reduce stress and get peace of mind (73.8%)',Barrier for Physical activity is "Don't have time (75.4%)".

LIMITATIONS:

As the study was conducted only among a few medical students, results cannot be generalized.

CONCLUSION:

In the present study, only 36.3% of the medical students were regularly practicing Physical activity. Less number of girls was physically active when compared to boys.

RECOMMENDATIONS:

There is a need to encourage Physical activity in the lifestyle of medical students, so that as physicians of tomorrow, they can advise their patients regarding healthy lifestyle practices.

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REFERENCES

1. World Health Organisation, Global Strategy on Diet, Physical Activity and Health. Available at: https://www.who.int/news-room/fact-sheets/detail/Physical-activity.
2. World Health Organization. Global status report on communicable diseases 2014. Geneva, Switzerland: World Health Organization, 2014.
3. 9. Samitz G, Egger M, Zwahlen M. Domains of Physical activity and all-cause mortality: systematic review and dose–response meta-analysis of cohort studies. Int J Epidemiol. 2011;40:1382–400.
4. 4. Warburton DE, Charlesworth S, Ivey A, Nettlefold L, Bredin SS. A systematic review of the evidence for Canada's Physical Activity Guidelines for Adults. International J Behavioral Nutrition Physical Activity. 2010;7(1):39
5. Krishnakumar P, Krishna P, Rasu T. Prevalence and patterns of Physical activity among medical students in Bangalore, India. Electron Physician. 2013; 5:606-10.
6. Rao CR, Darshan B, Das N, Rajan V, Bhogun M, Gupta A. Practice of Physical Activity among Future Doctors: A Cross Sectional Analysis. Int J Prev Med. 2012; 3:365- 9.
7. Boopathirajan R, Raveendran A, Ayyalusamy P. Study on practice of Physical activity among medical interns in a private medical college hospital in Chennai. Int J Community Med Public Health. 2019;6(5):1923. Available from: http://dx.doi.org/10.18203/2394-6040.ijcmph20191618

8. Kumar HH, Ramakrishnan N, Chandrashekar M, Jayaramegowda A, Kadian M, Chauhan V. A cross-sectional study on patterns, Motivating factors and Barriers for Physical activity among undergraduate medical students. Int J Med Public Health 2014; 4:413-6.

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