

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Awareness And Practices On Physical Activity Among Under Graduate Students In A Medical College.

P Shilpa Reddy¹, Jyothi R^{2*}, Sanjay TV³, and Girish K⁴.

¹Tutor, Dept of Pharmacology, Kempegowda Institute of Medical sciences, BSK-II Stage, Bangalore-70, Karnataka, India.

²Professor, Dept of Pharmacology, Kempegowda Institute of Medical sciences, BSK-II Stage, Bangalore-70, Karnataka, India.

³Professor, Dept of Community Medicine, Kempegowda Institute of Medical sciences, BSK-II Stage, Bangalore-70, Karnataka, India.

⁴Professor & Head, Dept of Pharmacology, Kempegowda Institute of Medical sciences, BSK-II Stage, Bangalore-70, Karnataka, India.

ABSTRACT

Physical exercise is considered as an essential part of healthy lifestyle style. The healthy lifestyle of medical students could facilitate the development of healthy physicians who is more likely to give effective preventive counseling to their patients. In this context, it is most important to find out the awareness and practices of physical activity among MBBS students and hence the present study was taken up. To assess the level of awareness, the current level of physical activity practices and to find out the reasons for not practicing by the study subjects. 108 study subjects of either gender were included asked to answer a semi- structured questionnaire. 76% subjects were involved in physical activity; among them 31.4% subjects were practicing both physical exercise and sports. 59% subjects were practicing regularly and 20.37% subjects were aware about the physical activity WHO recommends for adult aged 18-64 to get overall health benefits. 10.18% subjects not practicing physical exercise or sports because; workload (45.8%), laziness (9.25%) and 4.62% due to lack of time. Even though 59 % of the study subjects are practicing regular physical activity, only 20% are aware about the WHO guidelines, this may have negative repercussions on health. In this regard, there is a need to incorporate the physical activity topic in CBME curriculum and also all the medical colleges should provide a platform for practicing the same

Keywords: Physical activity, Physical exercise, Sports, Awareness and Practice.

<https://doi.org/10.33887/rjpbcs/2022.13.3.15>

**Corresponding author*

INTRODUCTION

Regular physical activity (PA) is an essential part of healthy lifestyle. It is also well established that regular moderate- or vigorous-intensity physical exercise (PE), a subset of physical activity will have preventive and therapeutic effects in reducing various chronic illnesses such as obesity, diabetes mellitus, hypertension, IHD and others. Also, healthy active living benefits both individuals and society in many ways, for example, by increasing productivity, improving morale, decreasing absenteeism, and reducing health-care costs. Other benefits include improved psychological well-being, physical capacity; self-esteem and the ability to cope with stress. [1,2]. Currently, WHO recommend engaging in minimum 150 minutes of moderate intensity activity or 75 minutes of vigorous intensity physical activity per week for adults to improve cardio-respiratory and muscle fitness. [3, 4] WHO has set a global target of 10% reduction in the prevalence of physical inactivity by 2025. [5] According to WHO statistics, 23% of adults' ≥ 18 years of age were insufficiently active and globally, physical inactivity is one of the major risk factors for chronic diseases and considered as fourth leading cause of mortality, which contributes to approximately 3.2 million deaths each year. [6] Apart from risk of chronic diseases, physical inactivity has negative impact on overall health status and quality of life of the population.⁵ As a future medical professional, awareness about importance of physical activity in promotion of health and guidelines recommended by WHO is the need of the hour for medical undergraduates to promote their own health and to educate patients. Even though physical activity is not a part of present medical curriculum, in-depth knowledge, experience and expertise will help them to be a role model in public domain and to prescribe various subset of physical activities such as physical exercise and sports for patients. There is an inconsistent data from the developing countries like India regarding the awareness about physical activity guidelines given by WHO. Hence, present study was undertaken with objectives to assess the level of awareness about the physical activity and to find out the current practices of physical activity (physical exercise and sports) by the medical undergraduate students.

MATERIALS AND METHODS

The present descriptive study was carried out by involving 108 participants of second year under graduate medical students of either gender (19-24 years) from Kempegowda Institute of Medical Sciences, Bangalore. After approval and clearance from the institutional ethics committee (IEC NO-KIMS/IEC/A104/M/2021), subjects were recruited by purposive sampling method for a period of three months (November 2021 to January 2022). Participants who were willing to give consent were included and those who could not be contacted for three consecutive visits by investigator were excluded from the study. After explaining purpose of the study, written informed consent was taken. Data was collected regarding socio-personal characteristics, awareness about WHO guidelines on physical activity, the current physical exercise and sports activity and reasons for non-involvement by interview method using semi- structured questionnaire. WHO guidelines [3,4] for adults on physical activity recommended for adults aged 18-64 years which include leisure time physical activity, transportation (walking or cycling), occupational work, household chores, play, games, sports or planned exercise, in the context of daily, family, and community activities. The recommendations are - Adults aged 18-64 should engage at least 150 minutes of moderate-intensity aerobic physical activity throughout the week. Data was collected and analysed using statistical software SPSS v20 and interpreted in terms of descriptive statistics such as mean, standard deviation and percentages.

RESULTS

The demographic data of the study subjects is presented in the **Table-1**. Out of 108 participants, 48 (44.44%) were male and 60 (55.55%) were female and the mean age was **20.80 \pm 0.96**. **Table-2 summarizes the Awareness regarding physical activity among study subjects**. 97 (89.814%) subjects were aware of the difference between the physical activity and physical exercise and only 22 (20.370%) subjects were aware of minimum amount of physical activity the WHO recommends for adult aged 18-64 to get overall health benefits. **Table -3 summarizes Physical activity Practices among study subjects**. Out 108 subjects, 82 (76%) subjects were practicing physical exercise and 26 (24%) were not practicing physical exercise and sports. Out of 82 (76%) subjects, 34 (31.4%) subjects were practicing both physical exercise and sports. **Table 4 depicts type of physical activity**, out of 82 practicing physical activity, 31(28.70%) subjects were practicing GYM, 21.29% walking, 18.51% jogging and only 7.40% subjects were practicing yoga. 13.88% were practicing Badminton, 7.40% Cricket, 5.55% Football, 0.92% of the subjects were practicing Valley ball and Tennis. **Table-5S summarizes Reasons**

for not practicing physical exercise and sports. 11(10.18%) told not practicing because of workload, 10 (9.25%) because of laziness and 5 (4.62%) told lack of time.

Table 1: Sociodemographic Characteristics (n=108)

Variables	n (%)
Age in years	
Up to 20 yrs.	47 (43.5%)
> 20 yrs.	61 (56.5%)
Gender	
Male	48 (44.4%)
Female	60 (55.6%)
Locality	
Urban	104 (96.3%)
Rural	4 (3.7%)
Mean ±SD of the study subjects - 20.80±0.96	

Table 2: Awareness Regarding Physical Activity (n=108)

AWARENESS	Number (%)
Participants aware of the difference between Physical activity and physical exercise	97 (89.8)
Participants heard about WHO Physical activity guidelines	38 (35.2)
Participants read about WHO Physical activity guidelines	25 (23.1)
Participants think is doctor job to advice about Physical activity	108 (100)
Aware of minimum amount of physical activity the WHO recommends for adult aged 18-64 to get overall health benefits?	22 (20.4)

Table 3: Physical Activity Practices Among Study Subjects#

Physical activity (n=108)		
YES	82 (75.93)	
NO	26 (24)	
Variables	Type/duration of activity	n (%)
Practice of physical activity (physical exercise and sports)	Physical exercise	82 (75.9)
	Sports	34 (31.4)
Frequency of physical exercise	≤5 days / week	19 (17.6)
	> 5 days / week	63 (58.3)
Frequency of sports	≤5 days / week	33 (30.6)
	> 5days / week	1 (0.9)
Duration of physical exercise / day	≤30 min	17 (15.7)
	> 30 min	65 (60.2)
Duration of physical sports / day	≤ 30 min	5 (4.6)
	> 30 min	29 (26.9)
#Multiple responses		

Table 4: Type Of Physical Exercise And Sports

Type of physical exercise	Number (%)
Walking	23 (21.3 %)
Jogging	30 (18.5 %)
Yoga	8 (7.4 %)
GYM	31 (28.7 %)
TYPE OF SPORTS	Number (%)
Badminton	15 (13.9 %)
Cricket	8 (7.4 %)

Foot ball	6 (5.6%)
Basket ball	3 (2.8%)
Volley ball	1 (0.9%)
Tennis	1 (0.9%)
Number of subjects practicing both physical exercise and sports are = 34	

Table 5: Reasons For Non-Involvement Physical Exercise And Sports (n=26)

Reasons	n(%)
Academic activities	11(45.8%)
Lack of time	5 (20.8%)
Laziness	10 (41.6%)

DISCUSSION

The present exploratory research assessed awareness on physical activity and practice of physical exercise and sports among medical students. In the present context, it is an important issue for medical professionals to promote their own health as well as health of the patients and general public by adhering to international guidelines. This study revealed only 20% of subjects were aware of WHO guidelines. Several studies conducted in developed countries observed that 2 to 43% of the medical students had awareness about guidelines published by their country. [7,8] There is a paucity of studies on awareness of WHO guidelines which is accepted internationally. Such guidelines will be a foundation for formulating physical activity guidelines for any country. There is a need for such guidelines in India based on in-depth research. Practice of physical exercise and sports were undertaken by 76% of subjects in the current study. Boopathirajan R et al. Int J Community Med Public Health has reported similar findings [9], but some studies have reported more of physical inactivity. [6,10] These evidences show that subjects are engaging in physical exercise without adhering to proper guidelines there by exposing themselves for health risk. Many studies used physical activity and exercise interchangeably and there is ambiguity in the usage of terminologies. [11] These facts stress for clear guidelines on physical activity and exercise. Reasons for non-involvement in physical exercise and sports shown that academic activities and lack of motivation was a major barrier. Similar finding was reported from a study Practice of Physical Activity Among Future Doctors: A Cross Sectional Analysis, international Journal of Preventive Medicine, Vol 3, No 5, May 2012. [2,10] These evidences depict that subject given importance to academics over promotion of healthy practices and predisposing themselves for the risk of non-communicable diseases in future. This study is limited by small sample size and extensive review literature reveals that present exploratory research is first of its kind in using WHO physical activity guidelines among medical students. Where, such guidelines are most relevant for this segment of population. The present research recommends for inclusion of international guidelines modified for local context in the undergraduate curriculum and importance should be given for implementation at college level by motivating undergraduate students and providing suitable infrastructure for physical exercise and sports.

CONCLUSIONS

The present study observed poor awareness about WHO physical activity guidelines and practice of physical exercise without appropriate guidelines. This condition can be talked only by inclusion of physical activity guidelines in curriculum and motivation.

ACKNOWLEDGEMENT

We are grateful to all the students who participated in study.

REFERENCES

- [1] Joy V, Vincent J. Public Health Rev Int J Public Health Res 2020;7(4):28-34.
- [2] Rao CR, Darshan BB, Das N, Rajan V, Bhogun M. Gupta A. International Journal of Preventive Medicine 2012; 3(5): 365-369.
- [3] Rakshana S, Eashwar A, Dutta R, Nisha B, Parasuraman G, Mohan Y, Jain T. Int J Res Pharm Sci 2020;11(4):6216-6220.



- [4] World Health Organization. Factsheet: physical activity, 2018. Available at: <https://www.who.int/news-room/fact-sheets/detail/physical-activity>. Accessed on 14 July 2017.
- [5] Guthold R, Stevens GA, Riley LM, Bull FC. Lancet Glob Health 2018;6:1077-86.
- [6] Rajappan R, Selvaganapathy K, Liew L. International Journal of Physiotherapy and Research. 2015; 3(6):1336-43.
- [7] Mandic S, Wilson H, Grill MC, Neill D. Monten J Sports Sci Med 2017;6(2): 5-12.
- [8] Cuthill JA, Shaw M. BMJ Open Sport Exerc Med 2019; 1(5):1-7.
- [9] Ramkumar Boopathirajan, Aswathy Raveendran, Pavithra Ayyalusamy. International Journal of Community Medicine and Public Health 2019; 6 (5):1-5
- [10] Zain H, Alobaysi YMY, Alosaimi AMH, Almoharib KOM, Almutairi AAM, Alharbi HAH. Journal of Research in Medical and Dental Science 2021; 9 (7): 204-210.
- [11] Sanjay T V, Yannick P, Mapakshi S, Ullas, Archana. Indian J Gerontol 2015;29 (4): 407-416.