

Original Research Article

A study on patterns of physical activity among medical interns in a teaching Hospital in Secunderabad, Telangana

Himabindu Moluguri, Anupama Pulla, Vimala Thomas, Y. Padmavathi*

Department of Community Medicine, Gandhi Medical College, Secunderabad, Telangana, India

Received: 05 March 2020

Accepted: 04 April 2020

***Correspondence:**

Dr. Padmavathi. Y,

E-mail: dr.padmavathiyale@gmail.com

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ABSTRACT

Background: Regular physical activity has been regarded as an important component of healthy life style. Physical inactivity is an important risk factor for the development of many non-communicable diseases like hypertension, obesity, diabetes, coronary artery disease etc.

Methods: A cross-sectional study was conducted among 300 medical interns to determine the patterns of physical activity and to assess the motivating factors and barriers for physical activity. A pre designed semistructured questionnaire was used for data collection. Data was entered into MS excel sheet and analyzed by using Epi Info.7.1.3. Version.

Results: In the study about 13% of the participants had BMI \geq 25.00 kg/m². About 41.7% of the total study population were engaged in some form of physical activity. Motivating factor for performing physical activity was to maintain good health as seen in 49.2% of the participants. Laziness was the major hindering factor for performing physical activity as seen in 56% of the participants. Gender and BMI had no significant relation with physical activity.

Conclusions: Less than half of the study population were engaged in physical activity. Most common type of physical activity was walking/running. Most common motivating and hindering factors for performing physical activity were to maintain good health and laziness respectively. Gender and BMI had no significant relation with physical activity.

Keywords: BMI, Medical interns, Motivating factor, Physical activity

INTRODUCTION

Physical activity has been defined as any bodily movement produced by skeletal muscles that requires energy expenditure. These activities include travelling, recreational activities, household activities, playing, working, etc.¹ The recommended physical activity for adults aged 18-64 years is at least 150 minutes of moderate-intensity physical activity throughout the week, or at least 75 minutes of vigorous-intensity physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity.²

Globally, in 2010, 20% of adult men and 27% of adult women did not meet WHO recommendations on physical activity for health.³

Regular physical activity is one of the most important practices that a person can do to stay healthy. Physical activity will increase one's chances of living longer, reduce risks for cardiovascular disease, type 2 diabetes, metabolic syndrome, some cancers and maintenance of Body Mass Index (BMI).⁴ BMI has been defined as the weight in kilograms divided by the square of height in metres (kg/m²).⁵

People who are insufficiently physically active have a 20% to 30% increased risk of all causes of mortality.⁶ Despite this evidence, many adults have a sedentary lifestyle. It is generally assumed that medical students have better knowledge about healthy lifestyle and dietary practices when compared to other college students. However, there is no evidence to indicate that this knowledge translates into practice in terms of maintaining good health.⁷

Healthy habits inculcated by students in college persist throughout the life. Healthy habits among medical students are even more important as they are future doctors.

Rationale

Modern lifestyle has become invisible hurdle to physical activity, especially among youngsters. Therefore this study aims at assessing the patterns of physical activity, motivating factors and barriers for the practice of physical activity and its correlation with BMI and gender.

METHODS

An institutional based cross-sectional study conducted among medical interns of Gandhi Hospital Secunderabad, Telangana state. Study was conducted during the period of August 2017 to September 2017. A sample of 300 was taken. All the Interns, both males and females who were available, willing to participate and gave informed verbal consent were included in study. A pre-designed semi structured questionnaire containing data on socio demographic characteristics and physical activity was used. Out of 300 subjects, 8 incompletely filled questionnaires were excluded, and arrived at a final sample of 292. Data was analyzed using MS Excel and Epi Info software version 7.1. Statistical measures obtained were frequencies, percentages. Analytical measures were obtained using chi square test, p value <0.05 was considered statistically significant.

RESULTS

A total of 292 medical interns participated in the study. Table 1 showed the distribution of study population according to age, gender and BMI. In the present study population, 179 (61.3%) interns were aged 23 years, 52 (17.8%) were aged 22 years, 45 (15.4%) were aged 24 years and the rest 16 (5.5%) were aged 25 years. Females outnumbered males, with females being 63.7% and males being 36.3%. About 87% participants were having BMI<25 kg/m² and the rest 13% were having BMI≥25 kg/m².

Figure 1 shows the distribution of study population according to practice of physical activity. It was found that about 122 (41.7%) study participants were practicing physical activity.

Table 1: Distribution of study population according to gender and body mass index (n=292).

Variable	Number	Percentage (%)
Age in years		
22	52	17.8
23	179	61.3
24	45	15.4
25	16	5.5
Gender		
Male	106	36.3
Female	186	63.7
BMI in Kg/m²		
<25	254	87
≥25	38	13



Figure 1: Distribution of study population according to practice of physical activity (n=292).

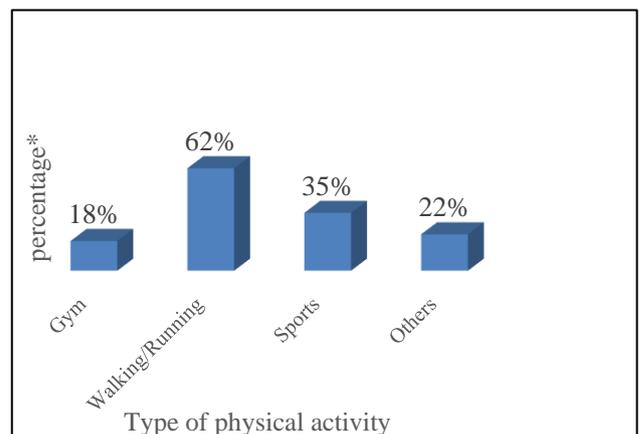


Figure 2: Distribution of study population according to type of physical activity practiced (n=122).

*multiple responses.

Figure 2 gave data of different types of physical activity being practiced. Out of 122 study subjects who practice physical activity, the most common type of physical activity being practiced was found to be walking/running (62%) followed by sports (35%), gym (18%) and others (22%).

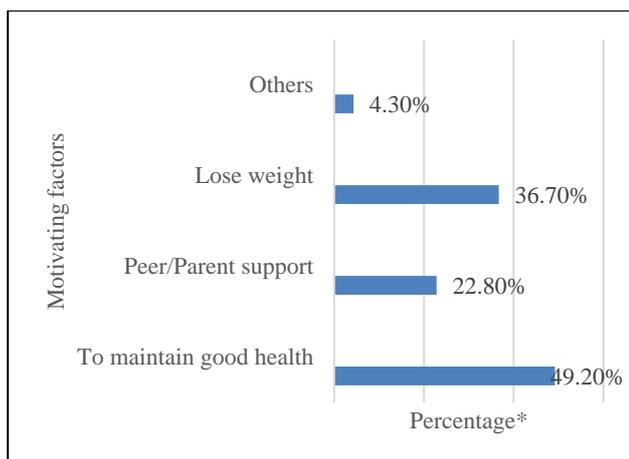


Figure 3: Motivating factors for performing physical activity (n=122).

*multiple responses.

Figure 3 showed the motivating factors for performing physical activity among study participants. Major motivating factors for performing physical activity was to maintain good health (49.2%) and to lose weight (36.7%), followed by peer/parent support (22.8%) and others (4.3%).

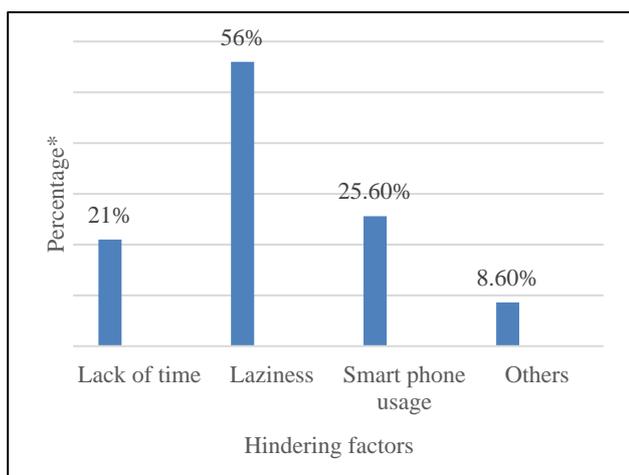


Figure 4: Hindering factors for performing physical activity (n=122).

*multiple responses.

Figure 4 showed the hindering factors for performing physical activity. Out of 170 study subjects who do not practice physical activity, the most common hindering factor was found to be laziness seen in 56% participants followed by smart phone usage (25.6%), lack of time (21%) and others (8.6%).

Table 2 showed the distribution of physical activity among study population in relation to Gender. Out of 292 study participants, 46.2% males and 39.2% females were engaged in some form of physical activity with a slightly higher proportion among males. This difference of 7% was not found to be statistically significant.

Table 2: Distribution of physical activity among study population in relation to gender.

Gender	Physical activity present	Physical activity absent	Total	Chi square, p value
	N (%)	N (%)	N (%)	
Male	49 (46.2)	57 (53.8)	106 (36.3)	1.35; >0.05
Female	73 (39.2)	113 (60.8)	186 (63.7)	
Total	122 (41.7)	170 (51.3)	292 (100)	

Table 3: Distribution of physical activity among study population in relation to BMI.

BMI in Kg/m ²	Physical activity present	Physical activity absent	Total	Chi square, p value
	N (%)	N (%)	N (%)	
BMI <25	105 (41.3)	149 (58.7)	254 (87)	0.15; >0.05
BMI ≥25	17 (44.7)	21 (55.3)	38 (13)	
Total	122 (41.7)	170 (51.3)	292 (100)	

Table 3 showed the distribution of physical activity among study population in relation to BMI. About 41.3% participants with BMI of <25 kg/m² and 44.7% participants with BMI ≥25 kg/m² were engaged in some form of physical activity. This difference of 3% was not found to be statistically significant.

DISCUSSION

Many studies have been done on physical activity which plays a major role in the prevention of many non-communicable diseases. WHO has recommended at least 150 minutes of moderate intensity physical activity per week for adults aged 18 to 65 years of age.³

In the present study out of 292 study participants, majority (87%) were having BMI <25 kg/m² and the rest 13% were having BMI ≥25 kg/m². Though majority of them are having BMI within normal range, the reason for high BMI among the remaining can be attributed to lack of physical activity and eating patterns. Different findings were observed in a study done by Khan et al, where majority of the students had BMI above 25 kg/m².⁸

About 41.7% of the students were practicing physical activity. Though medical interns are aware of the importance of physical activity, negligence and laziness may be the reasons for majority being not practicing physical activity. Similar findings were observed in a study conducted by Deepthi et al, but different findings were observed in a study done by Chakma et al, where

very few 28.6% of them were practicing physical activity.^{9,10}

In the present study walking/running was the most common form of physical activity which was practiced by about 62% of the study participants, which was in contrast to a study done by Kumar et al where sports related activities were the most common type of physical activity being practiced.¹¹

In the present study laziness was the most common hindering factor for physical activity, seen in about 56% of the participants. Similar findings were observed in a study done by Banerjee et al, where laziness was the most common hindering factor for performing physical activity.¹²

Most common motivating factors for performing physical activity were to maintain good health and to lose weight. Young adults are more conscious about physical appearance, this could be the reason behind the motivation. Similar findings were observed in study done by Chytra et al.¹³

Physical activity was comparatively more among male participants i.e 46.2% than among female participants i.e 39.2%. Generally, males involve in more outdoor activities like sports. This could be the reason for higher proportion of physical activity among males. Similar findings were observed in a study done by Padmapriya et al.¹⁴

Physical activity was being practiced by about 56% of study participants who had normal BMI, while a higher proportion i.e. 65% of participants with BMI group of ≥ 25 kg/m² were practicing physical activity. High BMI may be the reason for increase in physical activity among obese group. Similar findings were observed in a study done by Saranya et al.⁶

Limitations

As the study was conducted in one teaching hospital, sample size was small to generalise the findings for all medical students.

CONCLUSION

Less than half of the study population were engaged in physical activity, with walking/running being the most common types of physical activities being practiced. Most common motivating factors for performing physical activity were to maintain good health and to lose weight, while the most common hindering factors were laziness and smart phone usage. Gender and BMI had no significant relation with physical activity. Students should be motivated to spend more time outdoors. Self-imposed restriction on smart phone usage should be encouraged. Activities like walking and running marathons to be frequently conducted to keep up their motivation.

ACKNOWLEDGEMENTS

Authors would like to thank all the medical interns who participated in this study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Moluguri H, Pulla A, Thomas V, Padmavathi Y. A study on patterns of physical activity among medical interns in a teaching Hospital in Secunderabad, Telangana. *Int J Community Med Public Health* 2020;7:2249-53.