

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH www.wjpmr.com Research Article ISSN 2455-3301 WJPMR

# ASSESSMENT OF PHYSICAL ACTIVITY AND FITNESS PATTERNS AMONG UNIVERSITY STUDENTS IN PAURI GARHWAL, UTTARAKHAND

Saral Gupta<sup>1</sup>, Mehul Tyagi<sup>1</sup>, Virendra Singh<sup>1</sup>, Abhisek Ghansela<sup>1</sup>, Saurabh Saklani<sup>2</sup>\* and Poonam Rishishwar<sup>3</sup>

<sup>1</sup>B. Pharm Student, Faculty of Pharmacy, Maharaja Agrasen Himalayan Garhwal University, Pokhra, Pauri Garhwal-246169, Uttarakhand, India.

<sup>2</sup>Assistant Professor, Faculty of Pharmacy, Maharaja Agrasen Himalayan Garhwal University, Pokhra, Pauri Garhwal-246169, Uttarakhand (India).

<sup>3</sup>Head and Professor, Faculty of Pharmacy, Maharaja Agrasen Himalayan Garhwal University, Pokhra, Pauri Garhwal-246169, Uttarakhand (India).



#### \*Corresponding Author: Saurabh Saklani

Assistant Professor, Faculty of Pharmacy, Maharaja Agrasen Himalayan Garhwal University, Pokhra, Pauri Garhwal-246169, Uttarakhand (India).

Article Received on 09/10/2024

#### Article Revised on 29/10/2024

Article Accepted on 19/11/2024

#### ABSTRACT

University students are at risk of losing their focus on maintaining healthy levels of physical activity because of their engagements with curricular and cocurricular activities. In India, the physical activity levels of the adult population have been reported to be declining in the recent years. However, studies focusing on university students pertaining to their physical activity are lacking in the Indian context. Moreover, a question that has not been properly addressed is the following: "do the curricula in higher education promote physical activity?" A sample of 76 was used where there were 61 male and 15 female. This study gathered quantitative data through structured questionnaires to understand each of the objectives. Descriptive statistics were used to analyse data where the mean, median, mode and standard deviation was calculated, and a number of correlations were made using the same. It was found that respondents aging from 17-28 have low levels of physical activity. Moreover, when a comparison was made between the males and females on their levels of physical activity, women were found to do easier levels of physical activity. The BMI was likewise determined, so as to discover the class of weights that individual's fall into. While the vast majority expressed that practicing was imperative to them, they, despite everything neglected to work out for adequate hours per week. While individuals know and have the correct disposition towards working out, they have recently been unsuccessful when it came to really working out. At the point when it went to the reasons why individuals work out, the most well-known ones were to get fitter or more grounded or accomplish a positive inclination. Be that as it may, when it went to the demotivation of working out the most widely recognized reasons were the lack of time, energy and inspiration to work out. Some different elements that were a consequence of individuals being overweight were their temptations/cravings to eat fast food. A greater part of the respondents said that, they expended cheap food in any event 2-3 times per day. 17-28-yearold have busy lifestyles and hence are much harder to reach. A targeted intervention could be carried out in order to educate people about the importance of physical activity.

KEYWORDS: Physical activity, Fitness, BMI, University Students, Food Consumption.

### INTRODUCTION

This report understands the physical health and fitness patterns among the university students in Pauri Garhwal, Uttarakhand. The university students are seen hitting the gyms and being self-conscious in the recent day and age. Thus, this research's purpose is to study the level of physical activity, the general attitude and perceived impact of physical activity on health, food consumption patterns, the motivating factors and challenges faced while taking up fitness activities. The aim is to provide the colleges information about the university students of today, so that if necessary, actions can be taken accordingly. Physical activity is one of the most basic human functions and needs, which has benefits across the lifespan and has sufficient evidence that the university students believe and agree to the fact that physical activity improves: sleeping patterns, activeness and physical and mental wellbeing.<sup>[1]</sup>

Physical activity can be defined as "any bodily movement produced by skeletal muscles that require expenditure". Physical inactivity or being sedentary is a fourth leading risk factor for global mortality and is a major contributing factor for various non-communicable

The study data was collected in the format (Appendix-I) consisting of demographic characteristics of respondents

A descriptive research was done to understand the

physical health and fitness patterns among university students in Mumbai. The key objectives of this study

explored the level of physical activity among university

students, their attitudes towards physical activity and the

perceived impact that people have regarding their

physical activity and their weights. A cross-sectional

study was carried out where the study was used to gather

quantitative data through structured questionnaires to

This study was conducted on 76 students studying in the university. Who were between 17-28 years of age.

Data was analyzed by preparing tables and graphs using

Assessment of Demographic Characteristics of

Descriptive statistics were used to analyze the data. It was found that 19.73% of the respondents were females

whereas males were 80.26%. The mea weight of the

respondents was 62.507 (SD=12.09) ranging from 37Kg to 100kg. The ages of the respondents ranged from 17 to

28 where the maximum number of student were between the ages 21-24. The weights and heights of the

respondents were also asked, in order to calculate their BMI status. It was found that 17.11% of the respondents

were underweight, 50% were healthy, 30.26% were

overweight and 2.63% were obese. BMI of less than 18.5

means that a person is underweight, BMI between 18.5

and 24.9 is ideal, between 25 and 29.9 is overweight and

understand each of the above-mentioned objectives.

and level of physical activity or exercise of students.

**Data Collection** 

**Data Analysis** 

Microsoft word.

Respondents

a BMI over 30 indicates obesity.

RESULTS

 $\geq$ 

diseases such as diabetes mellitus, cancer and heart diseases.  $\ensuremath{^{[2]}}$ 

With growing affluence and a dramatic increase in TV watching and laptop usage documented in India, it is more likely to observe more sedentary habits among adolescents. The world is facing an epidemic of non-communicable diseases, and lack of physical activity is a major risk factor for these diseases. It is estimated that lack of physical activity causes 1.9 million deaths worldwide. As per WHO estimates, 80% of premature heart diseases as well as incidence of diabetes could be well prevented by a strategy of combined healthy diet, physical activity and avoidance of tobacco. Since students are the pillars of the future nation it is essential to for the youngsters to perform physical activity for the sake of physical, emotional and mental health.<sup>[3]</sup>

#### **OBJECTIVES**

- To study the level of physical activity among university students in Pauri Garhwal, Uttarakhand.
- To research the food consumption patterns among university students in Pauri Garhwal, Uttarakhand.

## METHODOLOGY

Study design: Cross-Sectional study.

**Study Site:** The study was conducted in Maharaja Agrasen Himalayan Garhwal University, Pokhra, Pauri Garhwal-246169, Uttarakhand, India.

Study Duration: The study duration was 6 months.

#### **Study Criteria**

- Inclusion Criteria
- All the students attending gym, yoga classes of Maharaja Agrasen Himalayan Garhwal University Pokhra, Pauri Garhwal-246169, Uttarakhand, India are included.
- b) Both genders.

#### • Exclusion Criteria

- a) All the students of the concerned department of the university.
- b) Apart from the students attending gym and yoga classes, no other students are involved.

# (i)

| Table 1(i, ii, iii): Assessment of Demographic Char | racteristics of Respondents. |
|---|------------------------------|
|---|------------------------------|

| Age   | No. of Students (%) (n=76) |
|-------|----------------------------|
| 17-20 | 17 (22.36%)                |
| 21-24 | 41 (53.94%)                |
| 25-28 | 18 (23.68%)                |

(ii)

| QUALIFICATION STATUS | No. Of Students (%) (n=76) |
|----------------------|----------------------------|
| Under-Graduate       | 16 (21.05%)                |
| Graduate             | 39 (51.31%)                |
| Post-Graduate        | 21 (27.63%)                |

(iii)

| BMI STATUS  | No. of Students (%) (n=76) |
|-------------|----------------------------|
| Underweight | 13 (17.11%)                |
| Healthy     | 38 (50%)                   |
| Overweight  | 23 (30.26%)                |
| Obese       | 02 (2.63%)                 |

Objective 1: To study the level of physical activity among university students in Pauri Garhwal, Uttarakhand.

The first objective of this paper studied the levels of physical activity carried out by the respondents. It was found that 27.89% of the respondents rarely workout of which females constituted 56%. Further, 27% of respondents said that they exercise 3-4 times a week which show contrasting views of people being in the category of either rarely exercising or doing it 3-4 times a week.

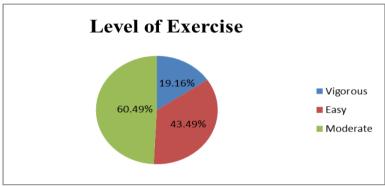


Fig. 1: Level of exercise.

As seen in the graph in figure 1 the level of physical activity carried out by the respondents observed that 60.49% of the respondents said they did a moderate level of physical exercise of which, the ratio of males to females was almost equal. It was found that more people did an easy level of exercise as compared to the vigorous level. 43.49% of respondents doing an easy level were females. Vigorous levels of exercise were done the least where males constituted 19.16%.

Furthermore, it is observed that most of the youth chooses the easy way out where the average no of hours per week is less than 2hrs and the most common form of physical activity chosen was Cardio (82.89% of the respondents) as seen in Table 2. It is an activity that requires the least amount of efforts, as even walking is included and doesn't require one to specially go to a location where the activities can be performed.

| Table 2. Form of physical activity.                                 |    |             |             |
|---|----|-------------|-------------|
| What forms of physical activity do you currently participate in?    | Ν  | Male (%)    | Female (%)  |
| Cardio (Waking/Running/Cycling/<br>Swimming/ Salt-Climbing)         | 63 | 54 (85.71%) | 09 (14.28%) |
| Outdoor Sport (Badminton/ Basketball/<br>Cricket/ Football/ Tennis) | 73 | 61 (83.56%) | 12 (16.43%) |
| Flexibility and Strength (Yoga, power<br>Yoga Pilates, Gym)         | 52 | 37 (71.15%) | 15 (28.84%) |
| Dance (Aerobics/ Zumba)   | 09 | 05 (55.55%) | 04 (44.44%) |
| Others  | 08 | 04 (50%)    | 04 (50%)    |

Table 2: Form of physical activity.

Objective 2: To research the food consumption patterns among university students in Pauri Garhwal, Uttarakhand.

On analysing the rate of fast food consumption, it was seen that the highest rate of consumption (36 respondents) was "once 2-3 days", followed by three rates which are very close to each other with "once 4-5" days, "once a week" and so on. To understand the major reason/factor for every rate of consumption, the occurrence of each factor for every rate was counted. It was seen that for the units who consume fast food every day, temptation/cravings are the major reason. For people who consume fast food once in 2-3 days, again temptation/ cravings being the biggest factor with the ease of access being a significantly contributing factor too.

| Everyday                    |             |  |
|-----------------------------|-------------|--|
| Preventive factors          | Respondents |  |
| Ease of access to fast food | 03          |  |
| Temptation/ Cravings        | 11          |  |
| Lack of time                | 04          |  |
| Emotional eating            | 01          |  |
| Cost                        | 00          |  |
| Accessibility               | 00          |  |
| Other                       | 01          |  |

Table 3 (i, ii, iii, iv, v, vi): Relation between fast food consumption and balance diet preventive factors. (i)

(ii)

| Once in 2-3 days            |             |  |
|-----------------------------|-------------|--|
| <b>Preventive factors</b>   | Respondents |  |
| Ease of access to fast food | 11          |  |
| Temptation/ Cravings        | 15          |  |
| Lack of time                | 05          |  |
| Emotional eating            | 00          |  |
| Cost                        | 01          |  |
| Accessibility               | 00          |  |
| Other                       | 00          |  |

(iii)

| Once 4-5 days               |             |
|-----------------------------|-------------|
| <b>Preventive factors</b>   | Respondents |
| Ease of access to fast food | 07          |
| Temptation/ Cravings        | 04          |
| Lack of time                | 01          |
| Emotional eating            | 05          |
| Cost                        | 06          |
| Accessibility               | 00          |
| Other                       | 00          |

(iv)

| Once a week                 |             |  |
|-----------------------------|-------------|--|
| Preventive factors          | Respondents |  |
| Ease of access to fast food | 4           |  |
| Temptation/ Cravings        | 08          |  |
| Lack of time                | 02          |  |
| Emotional eating            | 03          |  |
| Cost                        | 01          |  |
| Accessibility               | 01          |  |
| Other                       | 02          |  |

**(v)** 

| Few times a month           |             |  |
|-----------------------------|-------------|--|
| Preventive factors          | Respondents |  |
| Ease of access to fast food | 01          |  |
| Temptation/ Cravings        | 08          |  |
| Lack of time                | 02          |  |
| Emotional eating            | 01          |  |
| Cost                        | 00          |  |
| Accessibility               | 00          |  |
| Other                       | 00          |  |

L

(vi)

| Rarely                      |             |  |
|-----------------------------|-------------|--|
| Preventive factors          | Respondents |  |
| Ease of access to fast food | 01          |  |
| Temptation/ Cravings        | 01          |  |
| Lack of time                | 00          |  |
| Emotional eating            | 01          |  |
| Cost                        | 01          |  |
| Accessibility               | 00          |  |
| Other                       | 01          |  |

#### CONCLUSION AND RECOMMENDATION

University students aging from 17-28 have lower levels of physical activity than required; this is consistent with findings from (Poobalan, Aucott, Clarke, & Smith, 2012)<sup>[4]</sup>, (Eichorn, Bruner, Short, & Abraham, 2018)<sup>[5]</sup> as well. Moreover, when the level of physical activity between males and females were compared, it was found to be lower for females as found in (Ajibade, 2011)<sup>[6]</sup> as well. The BMI was also calculated in order to find out the category of weights that people fall into.

While most people stated that exercising was important to them, they still failed to work out for sufficient hours per week. While people are aware and have the right attitude towards working out, they have just been unsuccessful when it came to actually working out. When it came to the reasons why people exercise, the most common ones were to get fitter or stronger or achieving a positive feeling. However, when it came to the demotivation's of working out the most common reasons were the lack of time, energy and motivation to work out.

Based on the findings it can be said that there is need to create some serious awareness of the importance of physical activity in one's daily life and its benefits. Targeted interventions must be given to the university students to improve and sustain the levels of physical activity taken up by the university students. Awareness must also be created regarding the food consumption patterns among the university students.

#### LIMITATIONS

- The heights and weights collected were self-reported by the samples thus there is a chance of error from the respondent's side.
- Objective number two is more indicative than factual, only tells what is perceived by the respondents and may not correspond to their actions in reality.
- Non-Probability method of sampling and convenience sampling is used, which may not be the true representation of the population.
- The data collected is cross-sectional in nature, thus is only true for Mumbai, in the current period.

### REFERENCES

1. Roshini Rajappan, Karthikeyan Selvaganapathy, Lol Lew, Physical activity level among university students: a cross sectional survey. International Journal of Physiotherapy and Research, 2015; 3(6): 1336-43.

- 2. Saranya SV, Chythra Rao, Sravan C, Kumar, Veena kamath, Asha Kamath. Dietary habits and physical activity hospital in South India: A descriptive analysis. Tropical Journal of Medical Reseach, 2016; 19(2): 172-177.
- 3. Baseer Md, Revathi, Ayesh SN, Ramesh, Hiremath SG., Sreekantha. Dietary habits and lifestyle among pre-university college students in Raichur, India. International Journal of Research in Health Sciences, 2015; 3(3): 407-411.
- Poobalan, A. S., Aucott, L. S., Clarke, A., & Smith, W. C. Physical activity attitudes, intentions and behaviour among 18–25 year olds: A mixed method study. *BMC Public Health*, 2012; 1-10.
- Eichorn, L., Bruner, K., Short, T., & Abraham, S. P. Factors That Affect Exercise Habits of College Students. *Journal of Education and Development*, 2018, April; 2(1): 1-11.
- 6. Ajibade, P. B. Physical Activity Patterns by Campus Housing Status Among African American Female. *Journal of Black Studies*, 2011, May; 42(4): 1-14.