



## ASSOCIATION OF PHYSICAL ACTIVITY WITH HAPPINESS AMONG MEDICAL UNIVERSITY STUDENTS

Bhawna Lohana<sup>1</sup>, Nafisa Agha<sup>2</sup>, Bahadur Ali<sup>3</sup>, Raveena Kumari<sup>4</sup>, Farhana Lalbux<sup>5</sup>, Mir Tahir Hussain Talpur<sup>6</sup>

### ABSTRACT

**OBJECTIVES:** To determine the prevalence of physical activity, happiness and association of physical activity with happiness among Medical University Students in Shaheed Benazirabad. **METHODOLOGY:** A cross-sectional study was conducted on medical students at Peoples University of Medical and Health Sciences Shaheed Benazirabad. Sample size was 410 and convenient sample technique was used. The study duration was 6 months (March 2022 to July 2022). International physical activity questionnaire short form (IPAQ-SF) to measure the level of physical activity and oxford happiness questionnaire (OHQ) to determine the level of happiness in medical students respectively. Data was analyzed by the use of SPSS version 20. **RESULTS:** results of this study showed that the mean age of students was  $21.78 \pm 1.716$ . Among the total population 31.7% were highly active, 41.2% were moderately active, 27.1% were low active and 46.1% students were pretty happy. Medical students were not significantly happy with respect to physical activity with the p value of 0.579 and r value - 0.027. **CONCLUSION:** this is non-significant effect of PA with happiness on medical students as our most of the population was moderately active and pretty happy.

**KEY WORDS:** Physical Activity, happiness, medical students, university students.

1. PT. Institute of Physiotherapy and Rehabilitation Sciences PUMHSW SBA.
2. PT. Institute of Physiotherapy and Rehabilitation Sciences PUMHSW SBA.
3. Assistant Professor Institute of Physiotherapy and Rehabilitation Sciences PUMHSW SBA.
4. PT. Institute of Physiotherapy and Rehabilitation Sciences PUMHSW SBA.
5. PT. Institute of Physiotherapy and Rehabilitation Sciences PUMHSW SBA.
6. Associate professor, medicine, PUMHSW, SBA.

**Corresponding author: Corresponding author details:** Bahadur Ali (bahadurmangi@gmail.com) 03332476512

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### INTRODUCTION:

Almost 2 million deaths per year worldwide are reported due to physical inactivity, and it is an alarming problem in today's World<sup>1,2</sup>. According to WHO report almost 60% of population globally do not reach recommended levels of minimum daily PA<sup>2</sup>.

“All the leisure and non-leisure body movements resulting in an increased energy output from the resting condition”<sup>3</sup>. It is proven

scientifically that PA can reduce mortality rate and it is also main element in improving health conditions<sup>4,7</sup>. The main aim of WHO is to reduce physical inactivity and enhance PA by 2025 for the promotion of population's health globally<sup>4</sup>. Physical Activity can reduce risk for many diseases like Diabetes mellitus, and Osteoporosis, however insufficient physical activity in the early years of life may lead to health related problems in later life<sup>8</sup>.

Happiness is a major element and vital figure of human life<sup>9,10</sup>. Happiness can also be defined as “a state of mind or feeling characterized by contentment, love, satisfaction, pleasure or joy<sup>11</sup>, is considered among the most fundamental of all human goals”<sup>10-13</sup>. A happy person has always a positive and good feelings about everyone<sup>14, 15</sup>. Unhappiness is a state of being not satisfied or cheerful<sup>9</sup>. Being unhappy is related to many mental and physical problems like Cardio-vascular diseases, depression, and anxiety sometimes shorter life-span<sup>16-18</sup>.

Increasing PA level is associated with increased levels of happiness<sup>19</sup>. Physical Activity levels and happiness may affect the health and daily life performance of medical students that are future doctors<sup>20, 21</sup>. It is believed that Physical Activity and happiness can have major impact on human health<sup>22</sup>.

Happiness and health are considered through wellbeing of person<sup>23, 24</sup>. Mental, physical and psychological components of mind are main causes of breakdown of health status for any individual<sup>24</sup>. These components can decline the status of health of individuals that results in decreased happiness<sup>24</sup>. Medical university students as compared with other students are more stressed and are more engaged in academics because of their work conditions<sup>25</sup>.

#### METHODOLOGY:

This study is cross-sectional, descriptive in nature, which was conducted on medical students of PUMHSW Shaheed Benazirabad. The sample size was 410 and sampling technique was convenient. Ethical approval was obtained from institutional review board of IPRS PUMHSW. A consent form was taken from participants before filling the questionnaire. The study duration was 6 months from March 2022 to August 2022. Inclusion criteria was Students aged between 18- 25 years and female undergraduate PUMHS University Students and the exclusion criteria was Students with known case of lower limb disability like (Polio myelitis), pregnant and lactating women. In this study validated questionnaire such as IPAQSF that is self-assessment form of physical activity among the adults with age range of 18 to 25 years. Physical activity performed during last seven days at three intensities: vigorous, moderate and low (walking) and Oxford happiness questionnaire

that is used to provide accessible equivalent measure of happiness .It consists of 29 statements ranging from 1 “strongly disagree” to 6 “strongly agree”. Data was analyzed by using SPSS version 20.

#### RESULTS:

In this study, four hundred ten students participated with the age of 18 to 25 years and the mean age of undergraduate students was 21.78 years old with the standard deviation (SD) of 1.716. All disciplines were participated with 24.6% of MBBS, 38.6% of DPT, 8.8% of Pharm D, 11.5% of BS Nursing and 16.3% of BSPH. This was one centered study in PUMHSW SBA

Three categories of physical activity, Vigorous PA, moderate PA and low PA according to MET-minutes/week values that students accumulated in all physical activity categories. According to IPAQ-SF low activity scores 0-599 MET minutes/week, moderate activity scores 600-2999 MET minutes/week and vigorous activity scores over 3000 MET minutes/week. According to results the total IPAQ mean was 2315.021 with the SD of 2499.50.

The mean of sitting was 5.62with the SD of 2.959.

TABLE 1: DEMOGRAPHIC DATA			
Variable	N	Mean	SD
Age (inyears)	410	21.78	1.716
DISCIPLINE	Frequency (n=410)	Percentage (%)	
MBBS	101	24.6	
DPT	199	38.8	
PHARM-D	36	8.8	
BSNursing	47	11.5	
BSPH	67	16.3	
TOTAL	410	100.0	
YEAR OF STUDY	Frequency(n=410)	(%)	
1 <sup>st</sup> year	60	14.6	
2 <sup>nd</sup> year	94	22.9	
3 <sup>rd</sup> year	58	14.1	
4 <sup>th</sup> year	88	21.5	
5 <sup>th</sup> year	110	26.8	
Total	410	100.0	

Physical activity was categorized into low, moderate and high. Results shows out of 410 students 169 (41.2%) students were put into moderate category.

Variable		Mean	SD
Vigorous		523.20	1400.665
Moderate		507.76	899.348
Walk		1284.05	1210.431
Sitting		5.62	2.959
Categories		Frequency	Percentage (%)
Low		111	27.1
Moderate		169	41.2
High		130	31.7
Total	410	2315.021	2499.5098

Happiness is categorized into; 1-2 (not happy), 2-3 (somewhat unhappy), 3-4 (not particularly happy or unhappy), 4 (somewhat or moderately happy), 4-5 (pretty happy), 5-6 (very happy) and 6 (too happy). According to our results most of our population is pretty happy (46.1%).

Happiness Scale	Frequency	Percent
Somewhat Unhappy	11	2.7
Not particularly happy or unhappy	137	33.4
Somewhat happy or moderately happy	50	12.2
Pretty Happy	189	46.1
Very happy	22	5.4
Too Happy	1	.2
Total	410	100.0

For the correlation of both the metric variables physical activity and happiness we have used **Pearson correlation test**.

There was no statistical significant correlation found between physical activity and happiness ( $r = -0.027$ ,  $p = 0.579$ ).

Variables	Physical activity	
	R	P
Happiness	-.027	.579

#### **DISCUSSION:**

The main objective of our study was to investigate that association of PA with Happiness among medical students in PUMHSW. Therefore in this chapter the finding of this study was compared with results of other similar studies. Our results indicate that Majority of students were moderately active (41.2%) and Happiness Scale Shows participants were pretty Happy (46.1%). In our study we got the negative correlation of PA and Happiness so that it means participants that were not Physically active or somewhat less in PA were not so happy and considered in pretty happy category of happiness scale with the r value  $-0.027$  and the p value  $0.599$ .

Association of Physical activity with Happiness has been studied in different countries in the world. therefore only few studies conducted in Pakistan on association of Physical activity with Happiness among Medical students. In the comparison with the other countries like the studies conducted in South Korea that participants were 58.2 % happy<sup>26</sup>. the previous study show that Italians (72.4%) and Germans (73.8%) reports that lowest proportions of feeling happy and Dutch (91.1%) and Irish (91.1%) reported the highest proportion of feeling happy<sup>19</sup>. In comparison with Thai population 71.6% were physically active, the participants were less active (49.5%)<sup>27</sup>. The study conducted in Saudi Arabia show that 47.2% participants were PA<sup>28</sup>.

In Cyprus results shows that students who were Vigorous active correlation with happiness<sup>29</sup>. As studies showed that exercise or PA makes people feel good or happy<sup>16,30</sup>. One of the most important factor for healthy lifestyle is PA which could improve overall health like physical mental and happiness. Research shows that PA can positively increase happiness level, students mental and academic performance<sup>31</sup>.

**CONCLUSION:**

There are some studies that have been undertaken to investigate the relationship between happiness and physical activity among medical students and our study shows negative relation between PA and happiness. It shows that in our study population there is less physical activity might be due to medical students are more stressed from workload and clinical rotation routine.

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