



## A STUDY TO ASSESS THE PHYSICAL ACTIVITY AND ITS EFFECT ON MENTAL HEALTH AMONG TEACHERS FROM SELECTED TEACHING INSTITUTIONS.

**Vishal Shivaji Thube**

Msc, Mental Health Nursing, Bharati Vidyapeeth (Deemed To Be University) College of Nursing, Pune-43

**ABSTRACT** Physical activity boosts energy and the mood. The purpose of the study is to assess the physical activity and its effect on mental health in respective sample. A non-experimental prospective correlational study design taken. 300 sample chosen through convenience sampling. Physical activity and mental health assessed by 'IPAQ' and 'MHI18'. Tool validity established from 17 experts. Reliability done by test-retest method, (a-0.95 and b-0.97). Ethical clearance was taken. Data were collected by questionnaire. Data analysis was done using descriptive, inferential statistics and Karl-Pearson's correlation coefficient. The result shows that majority of sample were in 25-40 years (62.3%), female sample 60.7%, 28.3% having over-weight status. 59.3% sample possess moderate physical activity and 66.7% sample possess mild mental health. There is weak positive correlation between physical activity and mental health. There is association between physical activity and marital status. Professional experience and monthly income was highly associated with mental health.

**KEYWORDS :** Energy Expenditures, Physical Activity, Mental Health, IPAQ

### Background:

*"The mind and body are not separate. What affects one, affects the other."*<sup>1</sup>

The physical activity level is a method to express an individual's day to day physical activity as a number, and is used to evaluate an individual's overall energy expenditure.<sup>2</sup> The physical activity in day to day life can be designated into job-related, sports, conditioning, household, or other activities.<sup>3</sup> Good mental health can strengthen a sole life, while deprived mental well-being can stop someone from present worthwhile life. <sup>4</sup> The cognitive supposition shows that physical activity as a sort of challenge could raise an individual's faith in oneself and expertise such as self-efficacy and dependency.<sup>5</sup>

### Need of the study:

The World Health Organization report (2016) determines that between 35% and 50% of people with severe mental health problems in developed countries, and 76 – 85% in developing countries, experience no medical attention.<sup>6</sup> In 2017, World Health Organization given report that in India there are fifty six million India's population affected by depression.<sup>7</sup>

Balbir DE et al (2012), carried epidemiological survey of mental disorders at Pune, revealed that general lifetime danger of mental disorders was observed to be 5.03%.<sup>8</sup> The mental health foundation shows present mental health information, one in seven people has occurrence of mental health problems in the work setting (14.7%).<sup>9</sup> The relation between physical activity and mental health strengthen that consistent physical activity guides to boost positive mental well-being.

### Problem Statement:

A non-experimental study to assess the physical activity and its effect on mental health among teachers from selected teaching institutions of Pune city

### Research Objectives:

1. To assess the physical activity among teachers from selected teaching institutions
2. To assess the mental health among teachers from selected teaching institutions
3. To assess the effect of physical activity on mental health among teachers from selected teaching institutions
4. To associate the findings with selected demographic variables

### Assumption:

Physical activity may have an effect on mental health.

### RESEARCH METHODOLOGY:

In the present study quantitative research approach was adopted. In the present study non-experimental prospective co relational design was adopted. In present study, physical activity is the cause and mental health is the effect, which was assessed.

### Variables:

- i. Research variable: physical activity and mental health among

teachers from selected teaching institutions.

- ii. Demographic variable: age, gender, native place, educational qualification, designation, professional experience, marital status, monthly income, diet pattern, previous history of any illness and body mass index (BMI).

### Setting:

#### Setting adopted for main study:

- i. Sadhu Vaswani College Of Nursing, Koregaon Park, Pune-01
- ii. Sinhgad College Of Nursing, Narhegaon, Pune
- iii. Bharati Vidyapeeth College Of Nursing, Dhankawadi-Katraj, Pune-43
- iv. NBN Sinhgad School Of Engineering, Ambegaon, Pune-41
- v. Neville Wadia Institute Of Management Studies And Research, Pune-01
- vi. Sinhgad Institute Of Management, Vadgaon, Pune-41
- vii. S.K.N. Sinhgad School Of Business Management, Ambegaon, Pune-41

### Population:

Teachers from teaching institutions

### Sample:

Teaching professionals from selected teaching institutions

### Sampling criteria:

#### Inclusion criteria:

- The teachers who are present at the time of data collection period.

#### Exclusion criteria:

- The teachers who are in Antenatal and Postnatal period.

### Sample size:

300 teachers, in that 100 sample each from nursing, engineering and management institutions were taken.

### Sampling technique:

Non-probability sampling technique used, under that convenience sampling were used.

### Data Collection Tool:

**Section A-** Demographic profile: It has contained demographic variables.

**Section B-** Assessment of physical activity

For assessing the physical activity, IPAQ was used after modification. There are 3 levels of physical activity, I.e. low active, moderately active and high active. (Source: www.ipaq.ki.se)

### Section C – Mental health inventory

In MHI18, it has 4 subscales with scoring is given to each item from 1 to 6 (4 subscales-depression, anxiety, positive affect and behavioral control). Overall scores ranges from 0-100, with greater score

representing improved mental health. (Source: RAND Health Insurance Experiment Company, developed by Veit and Ware).

**Reliability:**

Reliability for section B – 0.95  
Reliability for section C – 0.97.

**Plan for data analysis:**

- 1) Descriptive statistics- Frequencies and percentage for the analysis of demographic variables. Mean, standard deviation
- 2) Karl Pearson's correlation coefficient
- 3) Inferential statistics-. Chi-square test

**Pilot study:**

The pilot study was accompanied in the period between 03/08/2017 to 14/08/2017. In this way the pilot study was found feasible to conduct the main study.

**ANALYSIS AND INTERPRETATION**

**SECTION – I**

**DEMOGRAPHIC CHARACTERISTICS OF SAMPLE**

*Table No. 1*

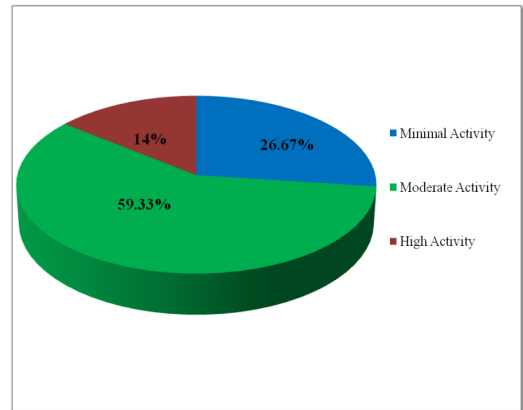
*Distribution of findings related to demographic variables of sample*

n = 300

Sr. No.	Demographic variable	Sub-category	Frequency f	Percentage f%
1.	Age (in years)	Up to 25 years	39	13%
		25-40 years	187	62.3%
		Above 40 years	74	24.7%
2.	Gender	Male	118	39.3%
		Female	182	60.7%
3.	Area of residence	Urban	224	74.7%
		Rural	76	25.3%
4.	Educational qualification	Graduate	72	24%
		Post graduate	211	70.3%
		PhD	17	5.7%
5.	Professional experience	Up to two years	51	17%
		2.1-4 years	62	20.7%
		4.1- 6 years	61	20.3%
		Above 6 years	126	42%
6.	Designation	Tutor	97	32.4%
		Lecturer	76	25.3%
		Assistant professor	102	34%
		Associate professor	16	5.3%
		Professor	9	3%
7.	Marital status	Unmarried/ single	74	24.7%
		Married	198	66%
		Divorced/ separated	23	7.7%
		Widowed/ widower	5	1.6%
8.	Monthly income	Up to 15000 rupees	29	9.7%
		15001-25000 rupees	72	24%
		25001-35000 rupees	73	24.3%
		More than 35000 rupees	126	42%
9.	Diet pattern	Vegetarian	117	39%
		Non- vegetarian	55	18.3%
		Mixed	128	42.7%
10.	History of illness	Yes	34	11.3%
		No	266	88.7%
11.	Body mass index	Underweighted	5	1.7%
		Normal	194	64.7%
		Over weighted	85	28.3%
		Obese	16	5.3%

**Distribution of findings related to physical activity among sample Section- II**

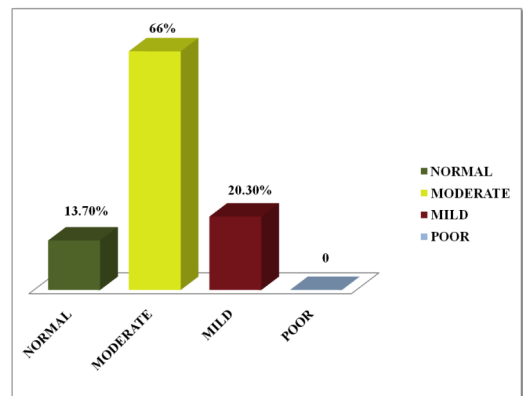
n= 300



*Figure no. 1 Pie diagram showed distribution of physical activity level among sample*

**Distribution of findings related to mental health among sample Section- III**

n = 300



*Figure no. 2 Bar diagram showed distribution of mental health among sample*

**SECTION – IV**

**Correlation between physical activity and mental health**

Section B – Physical activity and Section C – Mental health  
If there is,  $0 < r < 0.5$ , then there is weak positive correlation.  
Pearson's R statistic: 0.3.

Physical activity and mental health has weak positive correlation. Physical activity has minimal effect on mental health.

**SECTION – V**

**Association of the findings with the demographic variables**

Section – V (A)

**Association of physical activity level with demographic variables**

- Physical activity and marital status are statistically significant as p value came 0.02781.

Note: If p is small, e.g. less than 0.05, you can accept the result is statistically significant i.e. there is a relationship.

Section – V (B)

**Association of mental health with demographic variables**

- Mental status and educational qualification are statistically significant. As p value came as 0.01315.
- Professional experience and monthly income are statistically highly significant. As p value came 0.001.

Note: If p is small, less than 0.05 or 0.01, you can accept the result is statistically significant i.e. there is a relationship.

**DISCUSSION:**

The findings of the study have been discussed as follows. The present

study was undertaken to assess the physical activity and its effect on mental health. The study shown there is an effect of physical activity on mental health in positive manner.

These findings are in line with the study; Inge BO et al. Conducted study on relations between different types of bodily activity and educators perceived mental, physical and work related health. Total 1066 secondary school teachers are selected from 105 schools as sample in this study by using online survey. In this study long-form IPAQ was used. Results showed that, total 60 % of teachers having normal BMI level. Results shown there is positive relationship between relaxation-time physical activity and mental health.<sup>12</sup>

This concludes there is positive effect of leisure-time physical activity was supported by the literature.

Mohammad SA et al. Conducted study on relationship between physical activity and it's components with burnout in academic members, Researchers adopted correlational design to work on the research problem. In this study 81 sample were randomly selected from one 126 academic members. Maslach's burnout and Baecks physical activity questionnaire were used to gather the data from teacher sample. Results finding shows that there is inverse correlation between physical activity level and burnout.<sup>13</sup>

This literature concludes Physical activity level in the teachers actually benefits teachers to lessen the burnout.

### CONCLUSION:

The present study reveals that physical activity has effect on mental health. There is weak positive correlation between physical activity and mental health. In the teachers it seemed that most of them perform moderate physical activity and only few have high level physical activities.

Researcher started study with assumption of physical activity has effect on mental health among the teachers. This study reflected the issue of mental health status in specifically in teaching professionals. Imparted assessment in nursing, engineering and management teachers. Researcher concludes the teaching profession, duty of work allow them for sitting activities and screen based behavior which always been the factor for neglecting the physical activity in day to day lifestyle.

Present research study given the insight apart from the major findings the researcher given insight in the body mass index of the teachers i.e. 28.3% of teachers in the study comes under over weight category

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