



PHYSICAL ACTIVITY STATUS OF PHYSIOTHERAPY STUDENTS IN PUNE CITY: A SURVEY USING GPAQ (GLOBAL PHYSICAL ACTIVITY QUESTIONNAIRE)

Physical Medicine & Rehabilitation

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ABSTRACT

Need of study- No data available on physical activity status and levels of physiotherapy students in Maharashtra. If known, it can help in policy making to enhance physical activity in future physiotherapist who can promote it in their patients and community. **Objective-** To find physical activity level in Physiotherapy students in Pune City using GPAQ. **Method-** 400 physiotherapy students were analysed for their level of physical activity using GPAQ. **Results-** 75% of the students were physically active. 93% of them were active due to their travel domain. 83% students had moderate physical activity level. Interns were more physical active as compared to other students.

KEYWORDS

GPAQ, Physiotherapy students, Physical activity, Pune

INTRODUCTION

The world now heavily relies on technology. People are becoming physically inactive and adapting sedentary lifestyle. It has been noted that, it leads to a burden of growing medical costs and loss of productivity. 82% of premature death occur due to Non communicable diseases like obesity, HT, DM etc.^{1,2,3} Physical activity is defined as "any bodily movement produced by Skeletal muscle that required energy expenditure including activities undertaken while working, playing, travelling, an engaging in recreational pursuits". Doing regular physical activities also helps in many ways by enhancing physical and mental health. It has been reported to be a major "Modifiable" risk factor for NCDs.^{1,2,3} Recognizing the important of physical activities, WHO has started monitoring physical activities considering it as a public health priority.

Demand for physiotherapy course has increased tremendously over past few years. Students are involved learning process, attending their clinical postings, sports and extracurricular activities. All this may cause Students to suffer adverse mental and physical health issues. Regular physical exercise is found to be a protective factor for mental and physical ailments.^{5,6} If they are physically active, all such health issues and future risk of NCD can be reduced. A physiotherapist can create a positive impact on society & advocate physical activity by leading his/her own example thus, enhance quality of life in general public. There wide literature to support role of physiotherapists in promotion of exercise and PA to prevent and treat NCDs such as diabetes, cardiovascular disease, cancer, chronic lung disease, arthritis, liver disease, stroke, Alzheimer's disease and others.^{5,6} If they are physically active and exercise regularly, it can be beneficial for them to gain knowledge and facilitate learning while developing insights into the future challenges that they will face when implementing strategic health promotion in practice in community.^{7,8} For this impact, it is important to find out physical activity of these students first. No studies are currently available related to physical activity level of physiotherapist or physiotherapy students in India or Maharashtra. If it is found to be low, appropriate steps can be taken to correct it. Pune is the education hub of Maharashtra. It has 8 physiotherapy colleges and around 1200 students studying. These therapists can impact a huge population in future. Hence, this study has been planned with the aim of finding physical actives in physiotherapy Students in Pune city as a first step for analyzing levels of physical activity of physiotherapy students and physiotherapists in India.

MATERIAL AND METHOD

This survey was done on 400 students (Considering there are 1200 physiotherapy students in pune city, assuming 49% will give appropriate result, at 95% confidence interval the calculated size being 400, using Winpepi software) of UG /PG or internship from various physiotherapy colleges in Pune City who were willing to participate in study. Any student studying from college other than Pune city, having any injury or illnesses in last three months that can stop from being physically active were excluded from survey.

After the study design and procedure was approved by institutional ethics committee, students from PT colleges in Pune city were

approached .50 students from each college were decided to be taken. Due to logistical issues and time constrain ,Snowball method was used for gathering participants. The survey procedure was explained to students and their consent was obtained before collecting data. After gathering basic information, the activity levels were assessed using GPAQ (Global Analysis of Physical activity Questionnaire). It has been developed by World Health Organization (WHO) for global analysis of Physical activity, to reduce inter-country and within country variations in the evaluation of physical activity. It evaluates physical activity in three domains of work related, travel related and leisure time related activities. Physical activity is also assessed in regards to moderate and vigorous intensities. This questionnaire also gives information regarding the amount of time spent sitting. It has excellent psychometric properties and is widely used globally.^{2,4} Investigator asked questions from GPAQ and filled the questionnaire. There was no interference from the investigator while participant was answering to survey questions. Care was taken to provide similar explanation every time. Obtained data was analysed using descriptive statistics.

Figures and tables:

Table 1- Study Participant Division As Per Gender

Gender	NO.	PERCENTAGE
MALE	180	45%
FEMALE	220	55 %

Table 2- Classification Of Students As Per Physical Activity

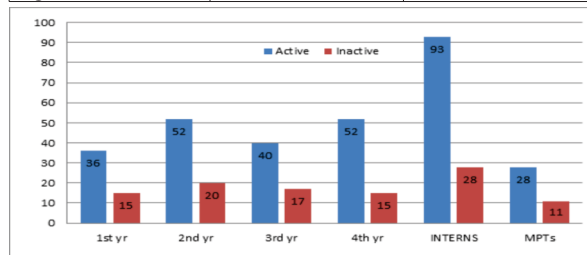
Physical Activity	No.	Percentage
Active	306	75%
Inactive	101	25%

Table 3- Division Of Activity As Per 3 Domains

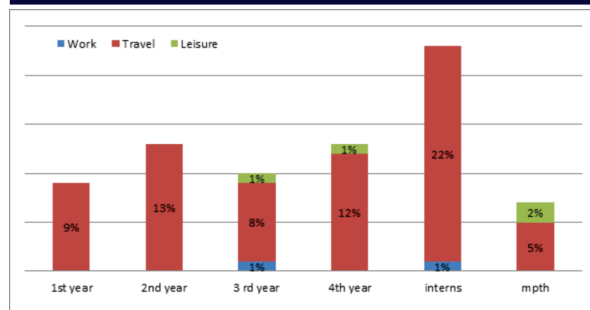
DOMAINS	No.	Percentage
WORK	8	2%
TRAVEL	378	93%
LEISURE	20	5%

Table 4.- Division As Per Level Of Activity In Active Students

Activity	No.	Percentage
Moderate	354	87%
Vigorous	52	13%



Graph 1-division Of Students As Per Their Seniority And Activity Level



Graph 2- Division Of Students As Per Activity Level And Seniority Level

DISCUSSION-

Such study has been done previously in physiotherapy students of different countries like Poland, Shrilanka, Spain, UK, Latvia, Australia.^{7,8,9,10,11,12} Profile of the students was similar to that seen in other studies done in other countries.

As seen in table 1, distribution of gender domain in male and female i.e males being 45% and female being 55%. PT in India is a female dominant profession since start. The same trend can be seen here too.

Table no 2 shows that, only 25% students were inactive and 75% students are active. This finding opposite to the finding of the researchers who did studies Shrilanka, Spain, UK, Latvia, Australia ,where it was seen that PT students had lower levels of Physical activity.^{8,9,10,11,12} Current findings are in accordance with Magdalena Da browska et al who conducted a study on Physical Activity in Students of the Medical University of Silesia in Poland. The short form of the International Physical Activity Questionnaire (IPAQ) was used to evaluate physical activity level. They concluded that, Physical therapist students of Poland demonstrated high level of physical activity.⁷

Although Magdalena Da browska et al attributed high levels of Physical activity to awareness and previous involvement in sports for Polish PT students, same trend could not be seen in Pune PT students. As seen in Table 3, students were found to be more active in travel domain (93%) instead of leisure domain which shows their participation in sports and other similar physical activities. The most common answers were obtained for engagement in activities like walking, cycling only few students were involved in playing sports. Pune city PT students are active mostly due to their daily up and down in clinical posting owing to being in a large city were travelling distances are more. For most of the colleges here, the posting involves cycling or walking from one place to other since the different wards are at considerable walking distance, active stair climbing and frequent moving around due to heavy patient load in clinical set ups. This highlights the need to study the barriers and facilitators to Physical activity in details which will ensure higher level of Physical activity in right manner.

According to table no 4, it was seen that, majority that is 87 % of physiotherapy students have been found to be moderately active. The common point in all this population observed was that the students are mainly engaged in walking, changing places while travelling to and fro between college and clinics resulting in moderate physical activity.

As seen in graph 1 and 2,when student were divided as per their seniority and activity level and as per seniority wise under 3 domains i.e work, travel and leisure, it was noted that, interns were comparatively more active than other students because the posting timings are more for interns and they have to travel more consistently and for more distances every day.

CONCLUSION-

75 % of the physiotherapy students were active. They were active in travel domain.

Recommendations

The study showed that, although Physiotherapy students are physically active, this is because of their travel and not because of any active efforts to be physically active. It emphasizes the need to enhance their awareness and practice about physical activity which in future will

ensure to keep them physically and mentally fit, and avoid any lifestyle disorders and enhance their role of physical activity promoter in community in future.

Since this study was done only in one city due to time constrains, in future a comprehensive study to analyze physical activity trend in whole country should be done. Analysis of trend of physical activity level in rural vs urban area, in female vs male students, in undergraduate vs post graduate students or physiotherapist along with finding the awareness of physical activity, perceived benefits barriers and reasons for being physically active or inactive should be studied in order to address this issue from root cause. Policies should be made considering these points to ensure fit physiotherapist thus, in turn a fit community which is free of life style disorder ill effects.

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