ORIGINAL ARTICLE

Levels of physical activity among medical practitioners working at Rehman Medical Institute Peshawar

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ABSTRACT

Introduction: Medical profession is one of the professions where individual's long working hours have been reported amongst Asian population. Due to the later fact, medical professional in the region have been reported to be less involved physical activities. This survey was conducted to determine level of physical activity among the medical practitioners working at Rehman Medical Institute at Peshawar.

Material & Method: A cross-sectional was conducted at Rehman Medical Institute. A total of 140 medical professionals participated in this survey. General physical activity questionnaire (GPAQ) was used to collect data from the participants. Both male and female participants were included in the study. Analysis of collected data performed by SPSS version 20.

Results: A total of 140 medical practitioners participated in this survey. A small number (5%) of the participants were involved in carrying out 'low level of physical activity', followed 24% participants involved in performing 'moderate level of physical activity' while the rest 71% of the participants were involved in vigorous activity.

Conclusion: A big proportion of medical professional are involved in carrying out physical activities weekly.

Keywords: medical professionals, physical activity.

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INTRODUCTION

Many researches have cleared the concept of exercise about the health-related benefits. Physical activity is beneficial for reducing different health problems like cardiac, musculoskeletal, obesity, and emotional distress (1). The major role in the promotion of physical activity in the society is played by the health care professionals like doctors, medical students, Family doctors, and especially by physiotherapists. All these professionals play a vital role in providing the information, benefits and health outcomes of physical activity and exercise (2). Various health-related risks such as repeated injuries are the major negative outcomes of exercise if done improperly. The patients must be willing to get all information regarding exercise and physical activity from doctors. Various pieces of literature have shown that most family physicians and primary care health professionals play a major and leading role in the promotion of physical activity by encouraging their patients(3). Rogers et al reported that the physician's personal experience of his/her own physical activity also improved counseling for physical activity. More active doctors who do physical activity regularly are more prone to promote physical activity to their patients. Physical exercise seems to be closely related to the gender as mostly male doctors are more active as compared to female (4). Physical activity involves body movements that are mainly generated by skeletal muscles and ends in energy utilization (5). Physical activity is an important factor for good performance and healthy lifestyle (6). In 2015 a worksite wellness program was introduced for Washington University employees which was effective for promotion of physical activity and cardiorespiratory fitness among university employees. The barriers to exercise were also identified by this program (7).

In Pakistan, a recent study about physical activity showed that 65.5 % medical practitioners did not indulge in physical activity and around 27% medical practitioners expressed lack of interest in physical activity (8). In 2015, the study was conducted at Rehman Medical College Peshawar to find correlation between BMI and physical activity of the medical students which concluded that overweight and obesity is not very high among the students of RMC (4% and 13%) respectively, however, the low levels of physical activity can lead to increased BMI and risk of obesity is aggravated(9). Lack of Physical activity has been reported high in general population in general and among medical practitioners in particular of developing countries. There seems dire need to assess the level of physical activities in medical practitioners in developing countries. Therefore, this survey was designed to assess the level of physical activities among medical practitioners working at Rehman Medical Institute Peshawar.

MATERIALS & METHODS

This was a cross-sectional survey which was conducted at Rehman Medical Institute. Medical Practitioners working at words D, F,H,-J,B,K, Intensive Care Unit, Cardiac Care Unit, consultants' Clinics and Physical therapy Department of Rehman Medical Institute were invited to participate in this survey. A total of 150 medical practitioners working in the mentioned wards and clinics participated in this survey. All house Officers, medical officers, trainee medical officers and registrars were included in this survey. Medical practitioners who were above 70 years old were not included in this study. Moreover, medical practitioners who had a trauma or had osteoarthritis were excluded from this survey. Data was collected

within two months of following approval from institutional graduate committee. Due to short duration of study, convenient sampling a type of non-probability sampling technique was adopted. Initially, all members of targeted population were provided with information about the project and were then invited to participate in this survey. Informed consents were obtained from all willing participants and a validated questionnaire GPAQ questionnaire of Physical Activity was given to all participants. The questionnaire was filled by the participants and was returned to the researchers on same day or few days later. The GPAQ developed by the WHO, measures the frequency (in days) and time (in minutes/hours) spent in doing vigorous and moderate-intensity physical activity in a typical week in three domains and sedentary behavior; work-related physical activity (P1-P6), travel to and from places (P7-P9) and leisure time (recreational) physical activity (P10-P15). To assess the level of physical activity an overall scale based on METS (metabolic equivalent units) per week was used, according to the following equation:

[(Number of days of vigorous activity per week * P3 * 8) + (number of days of moderate Intensity activity per week * P6 * 4) + (Number of days walking or bicycling per week * P9 * 4) + (Number of days Vigorous intensity activity per week * P12 * 8) + (Number of days of moderate intensity sports per week * P15* 4)]. Thus, less than 600 weekly METS and over 3000 weekly METS were considered as low level and vigorous level of physical activity, respectively.

RESULTS

Out of 150 participants, 140 returned the filled questionnaire. Majority of them were males (n=78) while the rest were females (n=62). A big proportion of the included population were house officer (n=30), followed by dentists (n=19) and Medical Officers (n=18) (please see figure 1 for the rest of professionals who participated in this survey).

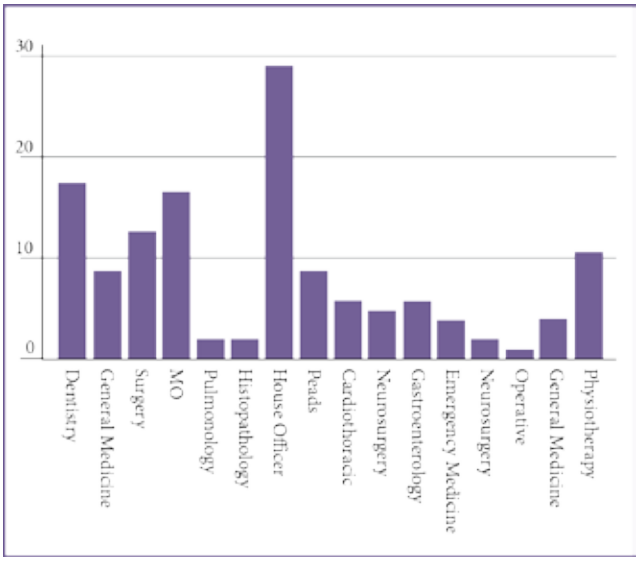

Figure 1: Figure showing specialties of participants who participated in this survey

All participants in the survey ranged from 23 to 55 years old. Majority of the participants were less than 30 years old while the rest ranges from 30 to 55 years (for details please see figure 2). A big proportion (80%) of medical professionals were not involved in taking vigorous physical activity, followed by medical professional (15%) carrying out moderate intensity physical activity. Only a small proportion of the selected population (5%) were performing mild physical activity.

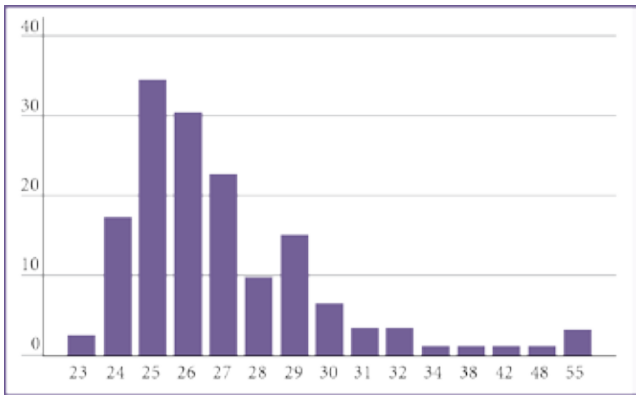

Figure 2: Figure showing age of medical professional who participated in this survey

In response to question Does your work involve vigorous intensity activity that cause large increase in breathing or heart rate like (carrying or lifting heavy loads, digging or construction work) for at least 10 minutes continuously, majority of the participant tick 'Yes' while small proportion of the population was not involved in such activities that largely increases breathing or heart rate. When asked about the number of days when vigorous activity is performed, a big proportion replied that they were carrying out vigorous activity six days a week (see figure 3 for more details).

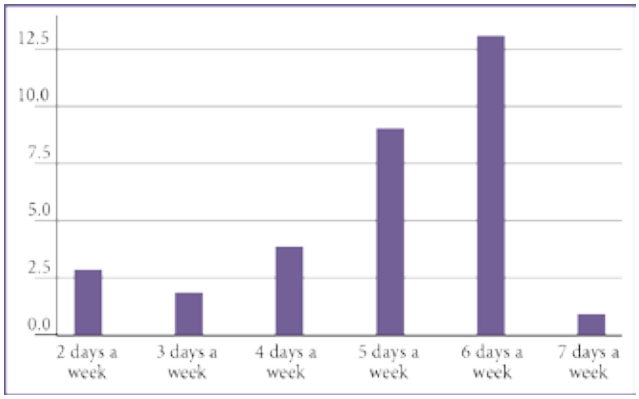

Figure 3: Figure showing number of days where physical activities were performed

More than half (58%) of the participants were involved in activities where they are picking some objects. Less than 2% of the participants were involved in any athletic activity for the whole week (for further details see figure 4).

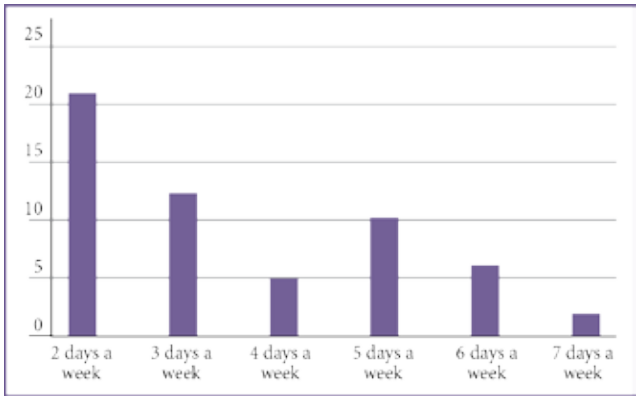

Figure 4: Figure showing frequency of participation in athletic activities

DISCUSSION

Medical professionals are in a good reputation for educating the health-related physical activity and exercise. Physicians exercise habits have a good impact on their own body health and it enhance their exercise counselling and prescription. That is one of the reasons that this survey was conducted to assess the level of physical activity amongst medical professionals of Rehman Medical Institute, Peshawar. Similar approaches might be seen in developed countries where different institutes are encouraged to assess the level of physical activities of their healthcare providers which ultimately helps to advising patients about the needs of physical activity in daily routine. The American Heart Association (AHA) assess physical activity on regular base for primary prevention of stroke and cardiovascular diseases (6). The present study concluded that most of the doctors who were included in the study were having a high level of physical activity that 29% of the participants were not involved in the regular physical activity. A small number of the population (3.6% of the participants) were involved in low level of physical activity, 17.1% of the participants were involved in the moderate level of physical activity while 58.6% of the participants were involved in the vigorous activity. Similar findings may be found in the literature where 34.8% of the medial professionals working in Saudi Arabia were reported to the physically inactive.

Physical inactivity is one of the risk factor for deaths around the world that leads to approximately 3.2 million deaths worldwide (5). The reason for this significant number of deaths due to physical inactivity is an increased number of diseases which are associated with low physical activity levels and sedentary lifestyle. World Health Organization has stressed that improvement of physical activity is an important public health purpose and people with low physical activity levels must be encouraged to participate in exercises and physical activities (10). In general, people who do exercises regularly are healthier and are less prone to developing physical and mental medical condition. Physical activity promotion programs for health professionals are implemented to reduce the risk factors of health. The workplace should be used as a setting for interventions that promote physical activity of employees (11).

We acknowledge that our study has few limitations, as it determined reported activity rather than actual activity, thus medical practitioners overestimate their exercise habits as they know the benefits of physical activity and within the limits of our study general population could not be included.

CONCLUSION

The study concluded that most of the health care professionals working at Rehman Medical Institute, Peshawar were having good rate of physical activity. However, being as medical professional, the participants were aware of the beneficial effects of physical activity and therefore generalization of the results may not be possible for general population.

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