



A Research Project Submitted to Lovely Professional University On

THE PREVALENCE OF WORK RELATED MUSCULOSKELETAL DISORDERS AND PHYSICAL ACTIVITY AMONG PHYSIOTHERAPISTS IN INDIA :A SURVEY STUDY

Submitted by

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IN

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ABSTRACT

Introduction:

Work related musculoskeletal disorders are conditions that are brought about and worsened Work environment and their conditions.physiotherapists are at a high risk of sustaining WRMDs they find themselves carrying out repetitive movements, transferring patients maintaining prolonged postures. Physical activity has been reported to reduce the prevalence of WRMDs amongst other high risk professions.the purpose of this study is to evaluate the prevalence and features WRMDs and prevalence of physical activity as well as evaluate the effect effectiveness of physical activity on WRMDs amongst physiotherapists in India as

Methodology:

This a descriptive and observational study in which clinical physiotherapists in India where invited to participate in the survey via a Google form link.

Introduction

Work related musculoskeletal disorders(WMSDs) are defined as musculoskeletal conditions caused by or made worse by an individual's occupation and work environment. Musculoskeletal conditions are injuries to the muscles, tendons, ligaments, joints, spinal discs and nerves.(1)

WMSDs are common in various professions within the health care industry with healthcare professions such as physical therapist, dentistry surgeons and nursing identified as high-risk jobs for developing WMSDs caused by risk factors such as heavy physical work inform of; repeated lifting and handling of various loads, awkward and strained posture which includes twisting bending and repetitive movements of different joints. (2,3)

Physiotherapists diagnose, rehabilitate, and treat movement dysfunctions. They also maintain and promote individuals' optimal physical function as well as help prevent musculoskeletal injuries or conditions and their progressions. (4)

Although physical therapists are better trained and possess deeper knowledge of the body, its mechanisms along with its musculoskeletal injuries or conditions and strategies to manage treat and prevent them, they often have to perform repetitive and physically intense tasks such as manual therapy, transfers, myofascial release putting them at a higher risk of WMSDs. A study by Molumphy M et al reports that's up to 70% of physiotherapists visit doctors because of WMSDs (19) with some studies stating that most physiotherapists are less likely to report their injuries or seek medical treatment relying on self-administered treatment making it difficult to gets statistics from hospital or clinical records. (3,4,5)

Amongst the WMDs reported by physiotherapists in other countries Low back pain is the most common and wise spread complaint with a recorded incidence rate of 45-60% in the USA, 68% in the UK,70% in Kuwait and 49% percent in Canada to name a few. With conditions such as neck pain, shoulder pain, wrist pain, and thumb pain following closely. (3,6,11,)

Multiple studies have been done on strategies for the prevention and management of musculoskeletal conditions WMSDs, these include work ergonomics, physiotherapy treatment and physical activity. (20,21,22)

Physical activity is defined by WHO as any movement done by the body that's expends energy.

Physical activity includes movement during leisure time, occupational hours, and commuting. (18) Physical inactivity is considered to be a global epidemic with approximately 70 % of the world's population affected by it studies show that about every 1 in 4 adults does not meet the required level of physical activity recommended and this statistic varies among countries with factors such as economic growth, means of transportation and urbanisation contributing highly to the increase of physical inactivity consequently resulting in increase of musculoskeletal conditions and disorders. (8)

The recommended level of physical activity for children and adolescence being 60 minutes of moderate to vigorous intensity daily and for adults aged 18 and above being 150 to 300 minutes of moderate intensity of aerobic physical activity per week. (8)

Physical activity that is structured and planned increases strength flexibility and endurance which in turn increases and improves muscle balance, postural control, resistance to muscle fatigue and muscle recovery time leading to an overall improvement in physical performance preventing improving and managing musculoskeletal condition including WMSDs.(9)

Recent studies show that there is inadequate physical activity among physiotherapists. A study by Anna Lowe et al done on physiotherapists in the UK found that there was a poor understanding and knowledge of physical activity guidelines and that the majority of the physiotherapists did not meet the recommended levels of physical activity.(10)

Despite this more studies have been done on professions such as office workers, nurses, And construction workers as compared to physiotherapists.

To the best of our knowledge there is limited information regarding the prevalence of WMSDs amongst physiotherapists in India to date.

Only 2 records were found to investigate this and of these studies one done by Zaheen Iqbal et al is limited to the state of Delhi, India.

Therefore, this study aims to:

Investigate the prevalence of WMSDs, their associations with demographic data such as age, gender, experience, and professional characteristics such as preferred treatment techniques and specialization's. To evaluate prevalence of physical activity and its effects on WMSDs amongst physiotherapists in India. To evaluate the strategies used by physical therapists to manage WMSDs.

Methodology

This study was a cross sectional questionnaire based online survey. The questionnaire was created on google forms and was sent out in form of a link targeting physiotherapy groups and individuals currently working in India, inviting them to participate in the survey.

A cover letter was added to the questionnaire having an introduction and objectives of this study. The participants were informed that their participation and submission of the questionnaire along with their consent were agreeing to their data being analyzed and published.

This study was approved by the ethics committee of Lovely Professional University school of applied medical sciences.

The targeted sample size of the study was 342 based on a previously published article. (23)

Inclusion and exclusion criteria

Our inclusion criteria were both male and female clinical Physiotherapists working in India, have at least 6 months of clinical experience, with > 1 hour per day of direct contact with patients, Exclusion criteria included those, who have not practiced within two years of this study and those who did not complete the questionnaire.

Questionnaire

The questionnaire was made to gather information on the prevalence and features of WMRDs as well as prevalence of physical activity amongst physiotherapist in India.

It consisted of two questionnaires which made the two parts, with the first being the Questionnaire on occupational injuries in physical therapists which has been published in previous articles. (24) and the second being the International Physical Activity Questionnaire short form (IPAQ-SF) its validity and reliability reported previously. (25)

Part one : The questionnaire on occupational injuries in physical therapists was split into 2 sections the demographic portion and the musculoskeletal portion.

The demographic portion was to be filled by everyone participating in the survey this portion inquired about the individuals age, weight, height, years of experience, number of hours of patient contact as well as area of practice.

The Musculoskeletal Pain portion had questions pertaining to the site of the musculoskeletal pain with these 9 anatomical regions listed neck, shoulder, upper back (thoracic), elbow, wrist/hand, lower back (lumbar/sacral), hip, knee, and ankle/foot the questions that followed asked about the history (the type of injury, how it was sustained and what exacerbated the symptoms) and strategies used to manage the conditions.

Part two: IPAQ-SF consisted of questions pertaining to physical activity of the physiotherapists in the last 7 days they were asked if they had done any vigorous, moderate activity, walking and sitting as well as inquiring how much time they spent doing them.

The demographic portion was to be filled by all participants they were then directed to the different parts of the questionnaire with the use of the question "Have you sustained any musculoskeletal injuries due to your work

within the last 2 years? Yes/No". Those that answered yes continued on to the Musculoskeletal Pain portion and later went on to part two while those that answered No were directly sent to part two: Physical Activity

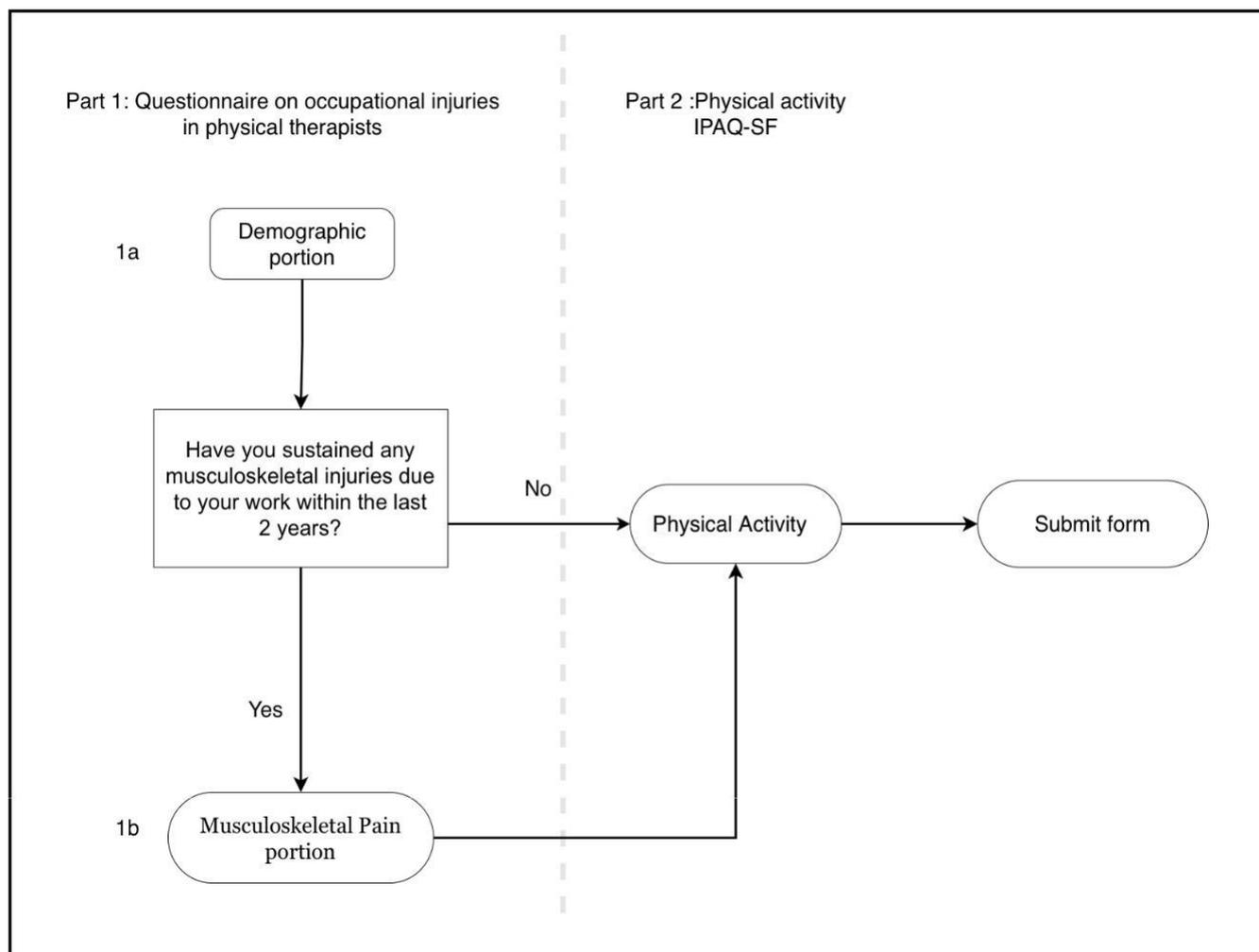


Figure 1: Chart showing how the participants were directed to different parts of the form based on their answers

Results

Will be added as soon as data collection is completed.

Discussion

Will be added after data analysis.

Conclusion

Will be added after data analysis.

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