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ORIGINAL ARTICLE

Work Related Physical Health Challenges Faced by Physical Therapists

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ABSTRACT

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. **Objectives:** To find the prevalence of work related musculoskeletal problems among the physical therapist.

Study Design: Associational, correlational, causal-comparative.

Methodology: The Physical therapists from clinical setups (private and public) in Lahore, Pakistan, were enrolled taking a sample size of 131. The sample size calculated was by keeping margin of error equal to 13% and level of significance equal to 5%.

Statistical analysis: Data was analyzed by SPSS software, version 25 as qualitative variables were expressed as frequencies and percentages.

Results: There was a significant relation of physical problems related to work of physical therapist as per daily routine of repetitive movements while giving a treatment to the patient.

Conclusion: We concluded that experts of the field either switch to the academic side or more preventive nature of job to manage the economic needs along with their profession.

Keywords: Work Related Musculoskeletal Disorders and Physical Health Problems.

INTRODUCTION

Before discussing in detail about the physical health challenges faced by physiotherapists let's look at a precise definition of what actually health is. World Health Organization (WHO) defined it as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". It is considered a basic human right[1]. However, the work environments challenge workers physically, leading them to suffer their work life, productivity, economic imbalance and personal life[2]. The working environment has declared to be the reason of work related diseases by the WHO. As they stated that working environment considerably contributes in work-related diseases, and partly caused by unaccommodating work conditions that puts down the health as fast as the workplace exposures increases[3]. Health and economic loss goes side by side due to the work related diseases. The highest rate of professionals effected by work related diseases are health care workers who work directly in contact with patients, due to their profession's demands and the physical positions needed to be maintained throughout the day[4]. As mentioned earlier that physiotherapists are more exposed to the physical work so the job is challenging and demands actions like repetitions, high force, exerting direct pressure on some joints, discomfited positions, and continuously remaining in same posture for a long time. All these demands are necessary to perform while treating patients[5]. The most common disease among the physiotherapist's work related disease is musculoskeletal disorder especially low back pain (LBP)[6]. The musculoskeletal disorders ascribed to the occupation factors are not new to the physiotherapists. It is known as work related musculoskeletal disorders (WMSDs) and described by World Health Organization (WHO) as "a wide range of inflammatory and degenerative diseases and disorders that result in pain and functional impairment". They arise when individuals are exposed to work activities and conditions that significantly contribute to their development or exacerbation, but which may not be their sole cause"[7]. Lower back pain is pain located between inferior gluteal folds and 12th rib, sometimes along with leg pain. It is said that mostly cases are left unspecified and the amount of cases specified is around 10%. Red flags are characteristics, signs and symptoms that are repeatedly linked with specific lower back pain. It is relatively frequent among adults and the proportion of a population that have chance to trigger it at some point in their life is 60–85%. It also causes economic pressure as with more work days lost and the treatment expenditures[8].

The statistics of occurrence of work related musculoskeletal disorders among physiotherapists is from 55% to as high as 91% adding the prevalence range of 1 year as 40 to 91.3%[9]. Focusing on it in partials; the back pain prevalence rate is seen to be 26 – 79.6% which is the most frequent causing factor of WRMDs[10]. The causes included are work pressure, physical load and number of patients being treated in a day. It is also seen in gender and age related as the people get older. Also it is more common among females, younger physiotherapists specifically those working in rehabilitation centers[11]. Furthermore, the back pain is followed by neck pain, upper back and shoulders as around 22 – 73.1%. As a consequence of work-related lower back pain problem, physical therapists then seek out treatment, alter their lifestyle and their leisure activities, take aids or aiding equipments, or change their specialty area either within the profession or by other than that. As work-related injuries can't be prevented even by skills, knowledge and using correct body mechanics[12]. Objective of study was to find the prevalence of work related musculoskeletal problems

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METHODOLOGY

Informed written consent was taken from all the participants prior to participating in this research. Identities of the participants were kept anonymous and confidentiality was maintained. There was no breach of professional ethics at all. Inclusion/Exclusion criteria: Physical therapists in private and public clinical setups treating patients on commission bases, working 9 hours or more per day and treating more than 15 patients on regular basis. Those who were not eligible for study were excluded. The data was collected from 131 physical therapists The Nordic questionnaire was chosen to make the health analysis as a data analytic tool for the body which assess from nine different parts of the body to ascertain the physical health problems of practitioner. 50% Data was collected from private clinics and other 50% was collected from public sectors. Data included both female and male practitioners. The increase in work related musculoskeletal disorders was assessed accordingly.

Statistical Analysis: After the data collection, the data was entered into Statistical Package for Social Sciences (SPSS) version 25.0 for analysis in terms of frequencies and percentages. Chi square was used to compare the work related physical health challenges between genders. A p-value of less than 0.05 was taken significant.

RESULTS

In this study, 131 people with mixed socioeconomic statuses from Lahore participated with their mean age was almost 32 years as shown in table-1.

Physical health problems in collaboration with previous 12 months past history of practitioner in terms of pain, numbness or discomfort as shown in table -2. Various other health issues were also summarized in same table.

Table-1: Demographics & Co-Morbidities (n=131)

Gender	Frequency	Percentage (%)
Male	63	48.1
Female	68	51.9
Parameter	Total	Mean ± SD
AGE (years)	131	31.54 ± 6.67

Table-2: Assessment Regarding Different Levels Of Health Issues Among Subjects

Statements	Categories	Frequency	Percentage (%)
Have you got any trouble like pain, numbness, discomfort during past 12 months?	Yes	104	79.4
	No	27	20.6
Have physical problem prevented from carrying out normal activities ADLS?	Yes	92	69.5
	No	39	30.5
During the last 12 months have you seen doctor for physical health problem?	Yes	47	35.9
	No	84	64.1
During the last 7 days do you had any physical discomfort?	No	97	74.0
	Yes	34	26.0
Do you had physical health problem in upper body or lower body?	upper body	52	39.7
	lower body	67	51.1
	None	12	9.2

No significant difference was observed in work related physical health challenges faced by physical therapists of both genders as shown in table-3.

Table-3: Comparison of work related physical health challenges faced by physical therapists

Work Related Physical Health Challenges		Males n = 63	Females n = 68	p-value
have you got any trouble like pain, numbness, discomfort during past 12 months	Yes	47 (74.6%)	57 (83.8%	0.192
Have physical problem prevented from carrying out normal activities ADLS	Yes	42 (66.7%)	50 (73.5%)	0.391
during the last 12 months have you seen doctor for physical health problem	Yes	20 (31.7%)	27 (39.7%)	0.343
During the last 7 days do you had any physical discomfort	Yes	13 (20.6%)	21 (30.9%)	0.181
do you had physical health problem in upper body or lower body	upper body	22 (34.9%)	30 (44.15)	0.499
	Lower body	34 (54.0%)	33 (48.5%)	

DISCUSSION

The results are reflecting that those practitioners who applied treatment techniques on patients in repetitive manner on daily basis have got physical health issues which reduced their work capability and functions of daily life. The results were proved by previous study[4] that 73.7% population found to be under the influence of work related physical health issues. They also proved that age is a prominent factor that effects the intensity of onset of physical health issues due to work environment. However, for lower back pain; number of patients dealt by the practitioner also effects the severity of back pain. Work environment has challenged ones physical ability lead to detriment in their productivity, economic imbalance and poor mental health[13]. The trends shown above clearly states that most of the practitioners faced discomfort, pain needed to seek medical advice which hindered their daily tasks to some extent. They seek relief from different types of treatments[14].

Results showed that almost 80 % of practitioners reported that they faced symptoms like pain, numbness and discomfort. The study also showed same percentage of the effected population which shows that around 80% practitioners suffer from physical problems including pain[7].

Karasek (1976) suggested that work environment effects on our daily life and routine tasks. However, our results show that almost 70 % of practitioners confessed that they face problems which prevented them from carrying out normal daily activities. As discussed earlier and proved by the results that almost 36 % of practitioners required medical advice or any kind of treatment while 64 % didn't required so. This hindered their daily tasks to some extent. They seek relief from different types of treatments[15].

Results showed more cases of lower body part physical problems than for upper body part health conditions. Most of them had lower body area suffered more than their upper body. It is found to be more common in different studies as compared to upper back pain that proposes lower back pain is more vulnerable body part and get effected more often[16]. While applying manipulative techniques and mobilizations the adverse pressure on small bones of wrist leads to irritation in bursae and further leading to inflammation either acute or chronic eventually. Any movement in repetitive manner on daily basis either using physical hand placement techniques or lifting patients limb had proven traumatic initially has caused micro trauma and made it vulnerable, dysfunctional and constant source of irritability in terms of pain or swelling.

Limitations: The study has few limitations as well. First the questionnaire needs time to fill however, during working hours the hustle of patients in clinics could intervene the results. The size of the sample is not enough to generalize the results over all practitioners.

CONCLUSION

We concluded that experts of the field either switch to the academic side or more preventive nature of job to manage the economic needs along with their profession.

Authors' Contribution:

AZ Conceptualized the study, analyzed the data, and formulated the initial draft.

MR Contributed to the histomorphological evaluation.

FA Contributed to the analysis of data and proofread the draft.

WL Contributed to data collection.

TL Contributed to the proofreading the manuscript for intellectual content.

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