

Occupational Stress in Physical Therapist Working as Clinician and Academician in Lahore (A Comparative Cross Sectional Study)

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Abstract

➤ *Background:-*

Occupational stress has now become a very common issue in the health care organizations. According to number of researched based articles, it is clear that within clinical settings work and performance is affected by occupational stress. As physiotherapy is still a growing field in Pakistan. There is a lack of authenticated data regarding the occupational stress among physiotherapists.

➤ *Objective:-*

Objective of the study was to compare the work related stress level in the physiotherapist working as clinicians and academicians.

➤ *Method:-*

A comparative cross sectional study was conducted. A valid questionnaire i.e. workplace stress scale was distributed among male and female PTs working in different setups. The sample size of 138 was calculated. Data was analyzed through independent T-Test.

➤ *Results:-*

Out of 86 participants from clinical workplaces, 21% had no stress, 32% had mild stress, 33 % had moderate stress, 14% had severe stress and 1% had potentially dangerous level of stress. Out of 52 participants from Academic workplaces 17% had no stress, 35% had mild stress, 29% had moderate stress, 16% had severe stress and 4% had potentially dangerous level of stress. P value of 0.73, was calculated through chi square test.

➤ *Conclusion:-*

There was no significant difference of occupational stress in physical therapists working as clinicians and academicians.

Keywords:- Occupational Stress, Stress, Physiotherapist, Physical Therapy, Clinical Therapist, Academician.

I. INTRODUCTION

➤ *Overview*

Occupational stress in physical therapist which include increased work load and overtime work environment that may become the cause of stressful working conditions [1]. Occupational stress does not only impact on physical therapy but can also affect your health when the stress of the workplace exceeds, it impairs the health quality[2]. Some physiotherapist have shown high level of occupation stress but it is difficult to determine the problem[3].

Various sources of occupation stress in a physiotherapy are related to administrative issue, clinical tasks[4]. Excessive work hours, poor management and heavy workload impact teaching and process of learning negatively. University teacher face issues either with the institutional or governmental side. The institutional problems include; rigid institutional policies, poor student behavior, reduced working conditions like diminished resources, poor school buildings, no incentive of reward as well as the ambiguity in role. While on the other hand the governmental issues includes reform as well as policies that are ever changing, availability of less budget than required, control of quality as well as concerns related to accreditation. These issues pose a source of stress for teachers of university[5]. A variation among the skills of physiotherapists may be observed due to stress which results in negative patient outcome[6]. Job stress can effect on mental status which also decrease focus of work Job stress is a risk factor of depression, affects both men and women have the higher ratio than men[7, 8]. In depressive women there was found low level of decision authority and depression associated with psychosocial work stress[9]. In clinical psychological stress increased the heart rate and cortisol level[10].

The stress related to occupation among the workers of health care is due to the lack of skills as well as reduced social support at work that leads to distress, problems associated with psychosomatic symptoms, reduced life quality as well as the provision of service[11]. Risk factors are related to disorders of musculoskeletal includes high physical work, carrying out smoking, having a high BMI as well as high psychosocial demand of work and involvement of complications[12]. High levels of work related stress have shown increased suicidal risks in female physicians[13]. Symptoms of depression are reported to be 26.1% in men while 28.7% in female while showing high

prevalence in females[14].

➤ *Objective*

Objective of the study was to compare the work related stress level in the physiotherapist working as clinicians and academicians.

➤ *Rationale*

Appropriate steps can be taken in future to combat this serious hazard in the way of psychological well-being thus improving their quality of life and performance at assigned designation.

➤ *Hypothesis*

• *Null Hypothesis*

There is no significant difference of occupational stress in physical therapists working as clinicians and academicians.

• *Alternative Hypothesis*

There is significant difference of occupational stress in physical therapists working as clinicians and academicians

II. LITERATURE REVIEW

Zehra, Marium et al., conducted a cross sectional survey in 2017 with the aim to find out the different causes of stress among females and males in private hospitals. To evaluate the relevant effects of stress due to commitment to the organization a self-structured stress model was used. The study concluded that firstly employees working in Karachi faced more stress than those of Lahore and secondly that males are under more stress than females on operational levels. The results clearly indicated that the causes of stress amongst the 2 gender are divergent. Organizational and environmental factors were leading causes of stress in males while personal factors were a leading cause in females[15].

Melda Soysal Tomruk et al. conducted a cross sectional study in 2016 with the aim to know physical activity level of physiotherapist to cope perceived level stress. Most of the physiotherapists were young and more than half of them were working less than 5 years. Physical activity level of physiotherapists was mostly moderate, and many of them have stress. Mostly negative relationship is seen between physical activity and perceived stress. Less physical activity is associated with higher levels of perceived stress in physiotherapists. All those approaches that are aimed to increase physical activity in physiotherapists may help in reduction of perceived stress[16][17].

MM Theme et al., conducted a cross sectional study in 2013 with the aim to analyze the relationship among job stress and self-rated health among nurses in emergency unit, According to this study professional dissatisfaction factor are related to Low control, reduced demand can be a source of demotivation. Decision making should encourage by a

health professional in institutions by adopting a policy related to planning as well as managing resources of human with a respect to reducing job stress[18][19].

G Roland et al., conducted a cross sectional survey in 2014 with the aim to measure the level of stress among the nursing professionals. Authors state that occupational stress can also affect the physical and mental state in nursing professionals. Nurses, working in the Hospital are experienced stress irritations. Common causes of occupational stress are physical symptoms, behavioral symptoms, physical work environment, and patient care, management of unit, technical aspect, and personal issues. Professional's performance can be compromised due to job stress[20].

Olaf von dem Knesebeck et al., conducted a survey in 2010 with the aim to analyze psychosocial stress in the workplace among hospital doctors working in surgical fields in Germany with the aid of the demand-control model, the effort-reward imbalance model, and selected additional indicators according to this study, In Germany hospital doctor in surgical field suffer stress at an increased level in work as compared to other occupational groups. Physician's health and their quality of health care are also affected[21][22].

III. MATERIAL AND METHOD

➤ *Study Design*

It was a comparative cross sectional study.

➤ *Settings*

- All private and government physical therapy setups
- Clinical and teaching setups attached with physical therapy departments. It was collected between the time duration of July to November 2017

➤ *Duration of Study*

Study took 6 months to be completed after the approval of synopsis.

➤ *Sample Technique*

Non probability convenience sampling technique was utilized.

➤ *Sample Size*

The sample size was taken as "138"

Sample Size was calculated with the margin of error 5%.

Confidence Level was 90%; the response of population was 85%

Sample size was calculated through Raosoft software as follows: $X = Z(c/100)2r(100-r)$

$N = N_x / (N-1) E^2 + x$

$E = \text{Sqrt} [(N-n)x/n(N-1)]$

In this formula:

n= Sample Size

E= Margin Error

N= Population Size

R= fraction of responses

$Z(c/100)$ = Critical Value for the confidence level c.

➤ *Sample Selection Criteria*

• *Inclusion Criteria*

- ✓ Physiotherapists whether working in a public or a private practice
- ✓ Physiotherapists working solely as clinicians or academicians
- ✓ Physiotherapists who had at least one year of experience in their current work settings
- ✓ Both male and female physiotherapists

• *Exclusion Criteria*

- ✓ Physical therapists who suffered from musculoskeletal disorders as a result of any previous surgery or trauma “not related to his or her work” were excluded.
- ✓ Physical therapists having any recent psychosocial distress in family or close social circle.

➤ *Data Collection Procedure*

Data was collected after taking clearance form of AZRA NAHEED MEDICAL COLLEGE permission letter was taken from concerned hospital and clinical setups to collect data about occupational stress in physiotherapists working as clinical and academician of Lahore. All the procedure regarding test protocol was perfectly explained in front of physical therapists. Demographic details of the physiotherapists were collected from government and private setups of Lahore. Data was gathered from universities and hospitals after taking approval of permission letter from universities. Workplace stress scale (WSS) was used to determine work stress. This scale consisted of eight items that determines how one feels about their job. Each question of scale was assessed by using 5 point likert scale. Interpretation of likert scale is as following;

- Never
- Rarely
- Some times
- Often
- Very often

➤ *Data Collection Tool*

For scoring, 6, 7 and 8 items are reversed. High scores indicate that there is higher job stress among the respondents. The reliability of WSS was found to be 0.70. Interpretation of total scores of respondents is given below:

- 15/<15 – relatively calm.
- 16-20 (fairly low)
- 21-25 (moderate level)
- 26-30 (severe level)
- 31-40 (potential dangerous level).

➤ *Ethical Issues*

Data was taken from physical therapists working as clinicians and academician after a written informed consent. It was approved and declared by Institutional Ethical Review Board of Azra Naheed Medical College, Superior University that the research project conducted by Shumaila aslam and Iqra Rasheed on “Occupational Stress in Physical Therapist Working as Clinician and Academician in Lahore

(A Comparative Cross Sectional Study)” carries no ethical issues in all conducts of this research. Participants were not given any stipend.

➤ *Statistical Analysis*

The data was analyzed by following methods

- SPSS version 20.
- Frequency tables for categorical variables.
- Mean and standard deviations was used for continuous variables.
- Independent sample t-test was used to compare the variables.

IV. RESULTS

➤ *Comparison of stress level*

Data is showing the comparison of stress level in participants from clinical and academic work places. Out of 86 participants from clinical workplaces, 21% had no stress, 32% had mild stress, 33 % had moderate stress, 14% had severe stress and 1% had potentially dangerous level of stress. Out of 52 participants from Academic workplaces 17% had no stress, 35% had mild stress, 29% had moderate stress, 16% had severe stress and 4% had potentially dangerous level of stress. P value of 0.73, calculate through chi square test showed that there is no statistical difference in the stress level of both groups.

Comparison of WORKPLACE STRESS SCALE score showed that among Physiotherapists from clinical workplaces had stress score of 19.74 ± 5.48 and physiotherapists from academic settings had stress score of 20.31 ± 5.774 . p value of 0.566, calculated through independent sample t test shows that there is no statistical difference in the stress level of participants in both groups.

V. DISCUSSION

In society stress is considered as a growing health issue. Stress in doctors and other medical practitioners has been found to be caused by a lot of factors which range from excessive load of work and prolonged working hours. Occupational stress is studied in a vast range of professionals groups but very little research has been conducted into the causes and effect of stress within the job of a physiotherapist.

In this study occupational stress among physiotherapists and the possible source of stress along with personal coping strategies were identified. Results indicated that physiotherapy is a moderately stressful occupation. Another study concluded that bachelor physiotherapists during their clinical practice mostly encounter conditions which are stressful but factors associated with stress were not identified. Stress might also be related to their interpersonal relationships in clinics or the issues related to their personal life[17].

Physiotherapists being health professionals are not only involved in the physical welfare of the society but they also greatly contribute to the emotional welfare of the

patients A recent study concluded that physical activity level of physical therapists was mostly moderate, and many of them had stress[16]. Recently a study was conducted in Karachi with the purpose of comparing occupational stress between doctors of Karachi and Lahore. According to this study stress was also different in both males and females. Effects of stress were potentially high amongst males due to organizational commitment. In fact the decrease in social support and few jobs for occupational therapists has caused more stress in employees of Karachi than that of Lahore. Similarly females face stress due to personal factors while males face organizational stress. Males suffered more physiological symptoms than females who only show behavioral symptoms. Social support in workplace help in increasing the organizational commitment amongst females[15]. Among teaching faculty in hospitals of Karachi, 48% of doctors graded job stress from high to very high levels[23].

VI. LIMITATIONS

Sample size for this study was small. The percentage of academicians and clinicians included in this study was not equal.

VII. CONCLUSION

Physiotherapists from Clinical and Academic workplaces were experiencing mild stress, and both groups gave similar response, so there was no difference in the stress level of participants in both groups.

VIII. RECOMMENDATIONS

Further studies should be conducted on experienced physiotherapists with working experience of 2 or 3 years clinically and academically.

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	Clinical n=86	Academic n=52	P-value
WORKPLACE STRESS SCALE SCORE	19.74±5.48	20.31±5.774	0.566
p- value considered statistically significant at ≤ 0.05			

Table 1:- Comparison of WORKPLACE STRESS SCALE score

Variable		Clinical n=86	Academic n=52	P-Value
Gender	Male	26(30%)	10(19%)	0.168
	Female	60(70%)	42(81%)	
Age		25.95±3.14	26.98±4.61	0.123

Table 2:- Socio Demographic Comparison (P-value ≤0.05 was considered statistically significant)

A total of 138 physiotherapist participated in the study, out of which 86 were from clinical workplaces and 52 were from academic work setting. Out of 86 participants from clinical setting 30% were male whereas 70% were females and out of 52 participants from Academic work place 19% were males and 81% were females. The mean age of participants from clinical workplace was 25.95±3.14 and from academic workplace was 26.98±4.61. P-value calculated through chi square test (0.168) and Independent sample t test (0.123) shows that both groups were comparable in socio- demographic characteristics.

Variables	Clinician	Academician	P-Value
	Means ± SD	Means ± SD	
Unpleasant and Unsafe working conditions	2.23±1.134	2.35±1.027	.556
Negative Physical and Emotional Effect	2.12±1.121	2.31±1.039	.320
Too much work and unreasonable Deadlines	2.58±1.057	2.67±1.115	.629
Difficulty in expressing feeling and opinion	2.56±1.123	2.40±1.176	.444
Job Interfere with Personal Life	2.56±1.133	2.54±1.179	.923
Adequate control over work duties	2.58±1.046	2.56±1.092	.899
Receive Recognitions and Rewards	2.85±1.023	3.06±1.127	.266
Able to utilize my Skills	2.27±1.121	2.42±1.161	.437

Table 3:- Comparison of means and standard deviation and p value of Occupational stress