

**Occupational stress among newly appointed Physiotherapists in Nagpur city: A cross-sectional observational study**

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**Abstract**

**Background:** Professional quality of life for those providing health care has been a topic of growing interest over past 21 years. The newly appointed Physiotherapists face many challenges due to the change of their roles in career and hence they're at risk of having occupational stress. According to number of research based articles, it is clear that occupational stress affects work and performance among the Physiotherapists.

**Objectives:** To study the Occupational stress and to identify the stressors among newly appointed Physiotherapists in Nagpur City using a structured questionnaire.

**Methods:** A convenience sample of 70 newly appointed Physiotherapists working (for not more than 6 months) in different clinical setups was studied under a cross-sectional observational study design using a structured questionnaire.

**Results:** 47% (33/70) of newly appointed Physiotherapists perceived themselves as moderately

stressed whereas 41% (29/70) of them feel slightly stressful due to their work. 4% (3/70) of respondents consider being a Physiotherapist to be extremely stressful while 7% (5/70) of them perceive no stress at all.

**Conclusion:** Results indicated that the majority of studied population perceived physiotherapy as a moderately stressful occupation. Possible sources of stress and the ways to cope up with it were provided by them.

**Keywords:** occupational stress, physiotherapy, physical therapist, health professionals, occupational health, workload, hospitals.

**Introduction**

Physiotherapists assess, plan and implement rehabilitative programs that improve or restore human motor functions, maximize movement ability, relieve pain syndromes, and treat or prevent physical challenges associated with injuries, diseases and other impairments.<sup>1</sup>

The psychological stress related to one's job is known as Occupational stress, it is because of the pressures that do not align with a person's knowledge, skills or expectations.<sup>2</sup>

Since, there is a link between the stressful job conditions and employees' emotional well-being, physical health and job performance, occupational stress is a concern for both employees and employers.<sup>3</sup>

The newly qualified physiotherapists face many challenges which affect their transition processes. The aspects of the challenges were identified in previous studies which included Situation, Role, Personal and Learning and Development. Factors influencing these challenges may result in poor coping mechanisms, limited competencies or difficulty with progression.<sup>4</sup>

The previous studies have concluded the negative effects of high levels of stress among the various health professionals which affect their psychological, physical health as well as the quality of care they provide and that of health care institutions. Various studies with physiotherapists have reported moderate to severe levels of stress, and it has been reported as a factor that diminishes the attractiveness of Physiotherapy as a career. Administrative issues and clinical tasks are among the many occupational stressors.<sup>5</sup>

Mental status is affected by job stress which decreases the focus on work and ultimately affects the quality of work done. Both men and women (women have higher ratio than men) show depressive symptoms due to job stress.<sup>6</sup>

The common sources of job-related stress in Physiotherapists have included excessive workloads and lack of resources (staff, equipments, time, etc).<sup>7</sup>

In India, among the total population of about 1.35 billion<sup>8</sup>, the medical supplies as well as Physiotherapists are deficient. This is because the

Physiotherapists need to work more effectively with small amount of resources and handling ability.<sup>9</sup>

Occupational stress increases the risk for a variety of adverse effects, which include burnout, turnover, sickness absence, and work-related musculoskeletal disorders (WMSDs) and is linked to medical and psychiatric conditions which include cardiac diseases, depression, etc. In healthcare providers, this stress reduces the quality of patient care. The professional culture in Physiotherapy may complicate the work environment.<sup>6</sup>

### **Material**

**Structured questionnaire:** The questionnaire was derived from the previous study by Elaine Mottram et al<sup>10</sup> which was intended to assess perceptions of occupational stress in newly appointed Physiotherapists and to identify associated coping strategies. It is composed of ten multichoice and open-ended questions which examine experiences of stress, identification of stressors, coping strategies and possible stress effects.

**Methods:** This was a cross-sectional observational study which included various Physiotherapy setups in Nagpur city. Sampling frame included the list of all the newly appointed Physiotherapists in the City. A consecutive sample of 70 Physiotherapists was included by convenient sampling method from this sampling frame.

Both male and female Physiotherapists, working for not more than 6 months in hospitals and clinical settings were included.

The subjects who were not present and those who were not willing to participate were excluded from the study.

**General procedure:** All necessary permissions were obtained from the Head of the institute and ethics committee for carrying out the research. A protocol was prepared for study.

The study protocol required the use of questionnaire. Hence the questionnaire was derived from the earlier study and was structured according to the required study protocol.

Validation of the questionnaire was carried out through the MET cell of a medical college so that the results would be accurate.

The Physiotherapists working for less than or 6 months were explained about the study protocol, its purpose and questionnaire used.

The written consent was taken from the subjects as per the directives of Indian Council of Medical Research (ICMR) guidelines, after the subjects were informed about the study protocol. They were assured of anonymity of the study. Then the subjects were provided with the questionnaire. The subjects were given ample time to fill up the whole questionnaire and then it was submitted to the researcher.

All the responses from the questionnaire were recorded in a Microsoft Excel sheet for further analysis. A statistical analysis was performed and the raw data was processed by various statistical methods.

#### Statistical analysis

Data was entered in MS Excel sheet, coded and analysed in statistical software.

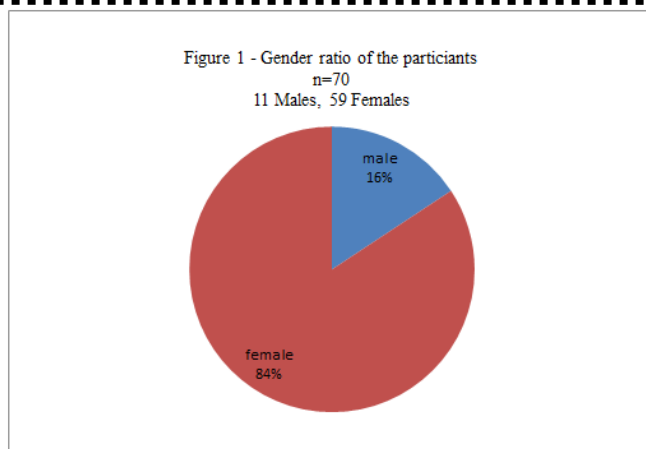
Data analysis included the descriptive statistics.

Frequency and percentages were used to summarize categorical (qualitative) variables and then item analysis was done.

Prevalence of Occupational stress assessed by the structured questionnaire was estimated with percentage along with 95% confidence level.

#### Results

The questions from the questionnaire, responses of the subjects to the questions and the results obtained from the study are as follows.



Q.1) How stressful an occupation do you consider Physiotherapy to be?

Response	No.	%
Extremely stressful	3	4.28
Moderately stressful	33	47.14
Slightly stressful	29	41.42
Not stressful at all	5	7.14

Q.2) How often did you feel stressed during the initial few weeks/months?

Response	No.	%
All the time	5	7.14
Frequently	21	30
Occasionally	26	37.14
Seldom/Rarely	18	25.71
Never	0	0

Q.3) How often did you feel stressed at present?

Response	No.	%
All the time	4	5.71
Frequently	10	14.28
Occasionally	35	50
Seldom/Rarely	14	20
Never	7	10

Q.4) Which of the following have you ever found stressful?

Response	No.
Being very busy	31
Working in a new ward	1
Discussing patients with Doctors	4
Patients not improving	27
Being on-call	4
Being unsure of your goals/being given conflicting instructions	10
Being unable to achieve your goals	7
RESPONSE	NO.
Working with acutely ill	12
Yes	48
Making decisions alone/working alone	68.57
No	22
Working on a weekend	31.43
Working with or under other Physiotherapists	29
Working with people who are dying	8
Ward meetings	4
Thinking that staff does not like you	0
Not having enough to do	9
Covering someone who is off duty	7
Thinking that patients do not like you	14
Not liking patients	1
Not liking other staff	2
Working late	5
Working with disabled young people	27
Discussing patients with Nurses/other Healthcare Professionals	2
Working with disabled elderly people	0
Making decisions with colleagues/seniors/other Physiotherapists	3
Not getting paid enough	8
Q.5) Any other aspects of work which cause stress? (Other than the factors mentioned in the previous question)	46
Additional factors mentioned were	
1. Workplace being away from home	
2. Continuous working without any rest breaks	

3. Long working hours

4. Shortage of staff

5. Treating uncooperative patients

Q.6) Do you think the department in which you work, help you to cope with stress?

If 'no', please suggest ways in which help can be provided.

The ways suggested were –

1. Provision of proper rest breaks in between the working hours

2. Allotment of time slots for sessions to the patients

3. Recreational activities within the workplace

4. Arrangement of professional counseling sessions for them

5. Properly ventilated and pleasant work environment

6. Increment in the pay

Q.7) Which of the following helps when you feel stressed?

Responses	No.
Speaking to your colleagues	33
Going out for a drink/lunch/dinner	33
Playing sport	14
Listening to music	45
Speaking to friends	38
Reading	17
Speaking to your immediate superior	11
Speaking to your family	26

Q.8) Which of the following have you ever experienced as a result of stress regarding the work?

Response	No.
Tired	52

Difficulty sleeping/insomnia	20
Irritability	46
Impatient	20
Didn't want to go to work	18
Feeling you are in the wrong job	9
Feeling helpless	15
Incompetent	3
Stomach upset	6
Headache	34
Loss of appetite	8

Q.9) How much do other worries outside the work affect your work?

Response	No.	%
Not at all	16	22.85
A little	38	54.28
Moderate	14	20
A great deal	2	2.85

Q.10) How is your job as compared to what you thought of it when you started training?

Response	No.	%
Identical	4	5.71
Quite similar	52	74.28
Dissimilar	14	20
Completely different	0	0

### Discussion

This study was undertaken to find out about the occupational stress among newly appointed Physiotherapists in Nagpur city.

The majority of Physiotherapists rated themselves as slightly and moderately stressed. A few of them considered Physiotherapy to be an extremely stressful profession. These results are in the same line with other

studies based on the occupational stress and burnout in health professionals that found moderate to high levels of stress related to their occupation.

Although majority of studies are primarily focused on professionals like physicians and nurses, studies with other healthcare providers such as physiotherapists found similar results. In 2016, a research based on nurses and physiotherapists concluded that Physiotherapists had higher risks due to recent expansion of scope and differences in implementation.<sup>11</sup>

A study by Santos et al demonstrated that most of the physiotherapists perceived that they were moderately stressed (35%) or stressed (36%) due to work.<sup>5</sup> Another study revealed that the Prevalence of Burnout Syndrome among Physiotherapists practicing in Jalgaon is found to be 40% which suggests moderately high burnout.<sup>12</sup>

A very few among these studies are about the newly appointed physiotherapists. Among one of them, by Anne Mandy et al suggested that the junior Physiotherapists demonstrated moderate level of factors indicative of burnout syndrome.<sup>4</sup>The respondents perceived Physiotherapy as a moderately stressful occupation in the research conducted among newly qualified Physiotherapists by Elaine Mottram et al.<sup>10</sup>

Majority of the respondents occasionally felt stressful during the initial few weeks of their work followed by those who reported to be feeling stressful frequently. In the same way, most of them occasionally feel stressful followed by those who rarely feel stressed at present.

This is in accordance with the study which concluded that the higher amount of burnout was found in recently graduated Physiotherapists. Most of them thought that physiotherapy was a moderately to very stressful occupation. The early post-graduation period is linked

with the development of organizational skills, time management and professional skills which results in stress.<sup>4</sup>

The stressors identified are work overload (being very busy, working on a weekend, covering for someone who is off duty, working late, making decisions alone/working alone), not getting paid enough and their patients not improving. Other factors selected as stressful are being unsure of goals, unable to achieve them, working with acutely ill, working and making decisions with other physiotherapists. The additional stressors reported are workplace being away from home, continuous working without any rest breaks, long working hours, shortage of staff and treating uncooperative patients.

In a previous study, the key workplace stressors reported were caseload quantity, complexity of patients, constant excessive workload, covering staff on leave and staff shortages.<sup>13</sup>

Some of the stressors cited in another research were feeling of having too much to do, dealing with unrealistic expectations, being alone when making decisions, being responsible for another person's wellbeing and having a heavy workload.<sup>14</sup>

Another study among Physiotherapists concluded that the low burnout scores may have been associated with working fewer hours. The importance of social support networks and lower working hours per week may also have helped to reduce the negative effects of work stressors and the possible development of burnout.<sup>15</sup> In line with the literature, it is found that participants working more weekly hours appear to be at higher risk of burnout.<sup>16</sup>

The overwhelming majority of the subjects reported that they had been helped to cope with stress at their workplace. Whereas, 22 subjects disagreed. This group

suggested the ways in which help can be provided.

These ways constitute provision of proper rest breaks in between the working hours, allotment of time slots for sessions to the patients, recreational activities within the workplace, arrangement of professional counseling sessions for them, properly ventilated and pleasant work environment and increment in the pay.

Similar results were found in the study by Marco Bruschini which suggested that prevention, monitoring and psychological interventions could decrease the effects arising from work-related stress.<sup>16</sup>

Marcel fischer et al suggested that not only the newly-qualified physiotherapists but also more experienced healthcare professionals need sensitive clinical supervision and additional training to help them deal better with their own psychological reactions to difficulties. Physiotherapists need opportunities where they could vocalize their feelings towards such difficulties in a supportive atmosphere.<sup>17</sup>

In response to the question about ways for coping with the stress, engaging in recreational activities such as listening to music, reading, playing a sport, playing a musical instrument and dancing, speaking about their problems with colleagues and friends, going out for a meal and speaking to their family were the popular choices. A small group chose speaking to the immediate superior to be helpful.

Talking to others about work problems is widely believed to be one of the most effective coping strategies for minimizing the effects of stress and its is also the basis of many counseling techniques.<sup>10</sup>

The similar results were found in the research where coping strategies utilized by post-graduate Physiotherapy students included sporting activities, baking, listening to music and social connections.<sup>18</sup>



According to a study among Physiotherapists in 2016, the negative relationship between perceived stress and physical activity level was found which concluded that those who engaged in physical activity perceived less stress.<sup>19</sup>

The majority of subjects experienced tiredness, irritability, headache and impatience as a result of stress regarding their work. In this study, these effects were not assessed in relation to the stressors found.

A large number (52) of newly appointed Physiotherapists found their job quite similar, followed by those who found it dissimilar (14) to what they thought of it when they started training. 9 subjects experience feeling of had chosen the wrong job and 3 feel incompetent. Only 4 Physiotherapists found that their job is identical to what they thought of it during training.

### **Conclusion**

It is observed from the study that 47% (33/70) of newly appointed Physiotherapists perceived themselves as moderately stressed whereas 41% (29/70) of them feel slightly stressful due to their work. 3 out of 70 respondents consider being a Physiotherapist to be extremely stressful while 5 of them perceive no stress at all.

The major stressors identified are work overload, not getting paid enough and their patients not improving. The other sources of stress are being unsure of goals, unable to achieve them, working with acutely ill, working and making decisions with and under other physiotherapists.

The ways of coping with stress are identified to be engaging in recreational activities, speaking about the problems with colleagues and friends. A small group finds speaking with their immediate superior to be helpful.

### **6.1. Clinical implications**

The stress management resources suggested in this study such as provision of proper rest breaks in between the working hours, allotment of time slots for sessions to the patients, recreational activities within the workplace, arrangement of professional counseling sessions for the Physiotherapists can be incorporated in the clinical settings (workplace) to equip the newly appointed Physiotherapists in managing their stress and thus work more efficiently.

### **Recommendations and suggestions**

Further detailed studies can be carried out for generalizing the findings of this study. The further studies should be based on assessing the occupational stress in relation to age, gender and experience in the clinical settings.

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