

# Prevalance of Disability Due to Low Back Pain Among Physical Therapists Practising In CP Centers

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**Abstract— Objective:** To identify the prevalence of disability due to low back pain among physical therapists practicing in the CP centers. **Methodology:** This cross sectional study was conducted in different rehabilitation centers situated in Karachi city from Jan 2013 to June 2013. The participants were randomly selected by convenience non probability sampling technique, and valid OSWESTRY questionnaire was used in this study to explore prevalence of low back pain of physical therapists. The participants for this study were all physical therapists working in different areas of Karachi city. Those physical therapists that filled the inclusion criteria were selected for the study. 100 validated questionnaires with consent form were distributed to all participants. Questionnaires used in this study contained closed ended questions. Close ended questions were analyzed by quantitative methods. After analysis data were presented in the form of tables and charts/figures. **Results:** Study results revealed that that majority of the physical therapists faces difficulty in doing so their day to day life activities and also certain reaching and throwing activities as well. **Conclusions:** Majority of the respondents reported about lower back pain in their life span, and said that it has strong association with their work (98%). Also low back pain is a hindrance in their daily life activities like sleeping, walking, bending, travelling etc.

**Index Terms—** Disability, Low Back Pain, Physical Therapist, CP Centers

## 1 INTRODUCTION

If we talk about the musculoskeletal disorders, the most common disorder until now identified in a common man is the low back pain. It affects 80 % of the population worldwide. It also affects the daily activities of people over their life time. As to get rid of this pain different treatments and measures are selected for the patients, depending upon the severity of pain. Numerous reasons and factors for lower back pain have been suggested, including age factor, gender, body mass index (BMI) or the physical activity of the patient [1]. Lower back pain is one of the most frequent and common cause experienced by the physical therapists nowadays. The reasons usually found in the Physical Therapists of lower back pain are:

- Injury
- Trauma
- Working conditions
- Sex and Age factor

The working conditions of a physical therapists can also be the reason of this back pain.

Usually in our society, the working conditions of the physical therapists are not very good. The environment given to them to work on is not so good. Usually the working conditions have:

1. Inappropriate environment
2. Unavailability of modalities required for the treatment
3. in-corporation of patients

Mostly it is being observed in the home visits of the physical therapists that the couch or bed, on which the treatment has to be done. Was not of good height or required height. The physical therapists have to bend forward and perform his given treatment. So, because of this the usual work related musculoskeletal disorder they experience is lower back pain. As usually tasks for a few weeks so therefore, these inappropriate

working conditions results in serious conditions for them. Their continuous treatment of days long becomes a hurdle for them. Usually the physical therapists found of lower back pain are of chronic lower back pain as their continuous unhealthy and inappropriate working conditions increase their duration of symptoms [2].

The reason behind these inappropriate working conditions is the unawareness .the physical therapists know that how they have to treat their patients, but they don't know that their health is also important, and they must have to take care of themselves as well.

As the risk factors threaten the individuals, so there risk factors are very dangerous for the physical therapist as well. Risk factors are affecting the life of the physical therapists are:

- Age
- Sex
- Hereditary factors
- Height
- Physical fitness
- Occupation [3].

Age is a major risk factor far the physical therapists the physical therapist who are old and have crossed the age of 50 are more prove to the lower back pain.As the degenerative changes occur in them so, after the degenerative changes if they continue their so much active routine and serve their patients just use to do before. so they might suffer from lower back pain [3].

The gender of the physical therapist also matter. if the physical therapists is a man so he might work more and up to a more certain age then the female one. As after the menopause the female will become prone to osteoporosis and therefore it would be difficult for them to work effectively. So, the gender also plays vital role in the occurrence and prevalence of lower back pain [4].

The hereditary factor is also a reason of the prevalence of

lower back pain in physical therapist. There are many physical therapists that have certain spine and back diseases, and they inherited these problems. So the physical therapist's suffering from this can also have lower back pain at a very early age. Through their activity level they can minimize the lower back pain. But as it is in their genes, so they can't totally get rid of it that easily [5].

As the body weight has a contribution in lower back pain, so it will also affect the physical therapists regarding the lower back pain. These physical therapists who are obese, or have high body weight than their height and age, so they might be able to suffer from lower back pain. Their body weight will be the reason of their lower back pain.

Height also contributes in the lower back pain. Those physical therapists that have an extraordinary height usually became the target of lower back pain. As their height will be more so the working conditions will must be for the normal heighted physical therapists and then these conditions will be inappropriate for them, and it will become the reason for their lower back pain.

The physical fitness of a physical therapist also contributes towards the lower back pain. Any physical therapist, who is physically unfit and don't fall upon the grounds of physical fitness usually have higher level of lower back pain. So the physically unfit physical therapists are usually not accepted in the society.

Occupation also be the reason of lower back pain. As the physical therapy is the profession of full body activity and exercising treatment of the patients is not easy to done. It is a full body movement environmental program, therefore the more the unnecessary physical activity, the more the chances of lower back pain among the physical therapists.

If the following measures will be taken, the risk of lower back pain is minimized in the physical therapists.

- Proper working environment and condition
- Availability of proper modalities
- Physical fitness of physical therapists
- Awareness of the health of physical therapists as well
- Furthermore, these risk factors remain for the lower back pain. They cannot be prevented but their effect can be minimized.

This is just a summarized review that on what factors are increasing the prevalence of low back pain in physical therapist must work out to correct his lifestyle [5], [6].

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## 2 MATERIAL AND METHODS

100 physical therapists working in different CP Centers of Karachi city were selected for this study. The participants for this study were selected randomly through the Pakistan Physical Therapy Association database by the convenient non probability sampling technique. The duration of the study was six months from Jan 2013 to June 2013.

Participants were requested for the completion of the questionnaire and returned to the researcher or the person who gave it to them after one week of time. The targeted population of this study was both gender have age range 25 to 35 years. Physical therapists practicing in the academic institution aged above 45 years were excluded from the study. All the questionnaires were delivered in person to the participants along with the introductory letter for participants' convenience. The introductory letter included introduction of researcher, aims of study, and details of data collection and how participants were selected and approached. All the responses were collected in person by the researcher. Initially all responses were coded with a unified coding system and data were entered in to the SPSS 20 according to the unified coding to assure participants anonymity. Each question was coded according to the number of options and a unique code was used for each option of the closed questions. Data analyzed by using Statistical Packages for Social Sciences (SPSS) version 20. Frequency, percentage used for statistical analysis SPSS version 20. Data was summarized and reported in the aggregate.

## 3 RESULTS

100 questionnaires were sent among the physical therapists practicing in different CP centers and they give almost the response of all the sections present in that questionnaire survey. The age of the physical therapists were ranging between 25 to 35 years. After the tabulation and analysis of the data, most of the physical therapists were found to be aged between 25 to 30 years about 90%, while the other 10% of the physical therapists were aged between 31 to 35 years. There were 73 female and 27 male. The results of the study revealed that with respect to daily activities when asked about getting out of the bed, 46% of the physical therapists reported that they does not feel any difficulty at all, while 35% of them faces minimal difficulty, 10% of the therapists feels somewhat difficulty, 8% of them find it fairly difficult while 1% of them found it very difficult to get out of the bed and intensity of the low back pain they experiences.

When the therapists were asked how they sleep throughout night and turn over in bed 24 and 19 respectively had no difficulty, 34 and 43 respectively had minimal difficult 25 and 22 respectively had somewhat difficulty, 15 and 12 respectively felt fairly difficult, and 2 and 3 find it challenging and very difficult. And when the therapists were asked how they felt while driving car and climb one flight of stairs 16 and 12 respectively had no difficulty, 34 and 26 respectively had minimal difficult 23 and 32 respectively had somewhat difficulty, 17 and 31 respectively felt fairly difficult, and 10 and 7 find it very difficult. Further, when the therapists were asked how they felt when they stand for 20-30 mins or sit on a chair for several hours, 12 and 8 respectively had no difficulty, 33 and 25 respectively had

minimal difficult 29 and 32 respectively had somewhat difficulty, 16 and 22 respectively felt fairly difficult, and 10 and 10 find it very difficult. Additionally, when the therapists were asked how they felt when they walk a few blocks (300-400 m) and also when they walk several kilometers 11 and 24 respectively had no difficulty, 16 and 32 respectively had minimal difficult 45 and 27 respectively had somewhat difficulty, 16 and 14 respectively felt fairly difficult, and 9 and 3 find it very difficult. The results were not good when therapist were asked questions like, how they felt in reaching up to high shelves, in throwing a ball, in running one block (about 100m), in taking food out of the refrigerator and in moving a chair, the results were that out of total 5, 6, 14, 8 and 6 respectively had no difficulty, 31, 28, 21, 23 and 28 respectively had minimal difficult 28, 28, 35, 32 and 31 respectively had somewhat difficulty, 23, 25, 23, 27 and 24 respectively felt fairly difficult, and 13, 11, 7, 9 and 9 find it very difficult. When the therapists were asked that how they felt when they make their bed, put on socks (panty hose) and bend over to clean the bathtub 16, 10 and 14 respectively had no difficulty, 31, 24 and 18 respectively had minimal difficult, 24, 34 and 33 respectively had somewhat difficulty, 19, 24 and 26 respectively felt fairly difficult, and 10, 8 and 9 find it very difficult. Lastly when the therapists were asked that how they felt when they push or pull heavy doors, carry two bags of groceries and lift and carry a heavy suitcase 14, 7 and 4 respectively had no difficulty, 21, 22 and 25 respectively had minimal difficult, 32, 32 and 32 respectively had somewhat difficulty, 21, 26 and 23 respectively felt fairly difficult, and 10, 11 and 13 find it very difficult. The results related to pain intensity revealed that out of the 100 of them, 3% reported that the pain they experience is mild and comes and goes, while 22% of the others stated that their pain is mild and does not very much. 21% of the others reported that there pain intensity is moderate and comes and goes, while 30% of them stated that their pain is moderate and does not very much. 21% of the physical therapists reported that their pain is severe and comes and goes, while 3% of the other stated that their pain is severe but does not very much.

TABLE I  
DAILY ACTIVITIES

Daily Activities	Frequency (Percent)				
	Not difficult at all	Minimally difficult	Somewhat difficult	Fairly difficult	Very difficult
Get out of bed	46 (46.0)	35 (35.0)	10 (10.0)	8 (8.0)	1 (1.0)
Sleep through the night	24 (24.0)	34 (34.0)	25 (25.0)	15 (15.0)	2 (2.0)
Turnover in bed	20 (20.0)	43 (43.0)	22 (22.0)	12 (12.0)	3 (3.0)
Ride in a car	16 (16.0)	34 (34.0)	23 (23.0)	17 (17.0)	10 (10.0)
Stand up for 20-30 minutes	12 (12.0)	33 (33.0)	29 (29.0)	16 (16.0)	10 (10.0)
Sit in a chair for several hours	9 (8.0)	27 (27.0)	32 (32.0)	22 (22.0)	10 (10.0)
Climb one flight of stairs	12 (12.0)	28 (28.0)	22 (22.0)	31 (31.0)	7 (7.0)
Walk a few blocks (300-400 m)	11 (11.0)	18 (18.0)	46 (46.0)	16 (16.0)	9 (9.0)
Walk several kilometers	24 (24.0)	32 (32.0)	27 (27.0)	14 (14.0)	3 (3.0)
Reach up to high shelves	5 (5.0)	31 (31.0)	28 (28.0)	23 (23.0)	13 (13.0)
Throw a ball	6 (6.0)	28 (28.0)	29 (29.0)	26 (26.0)	11 (11.0)
Run one block (about 100m)	14 (14.0)	21 (21.0)	35 (35.0)	23 (23.0)	7 (7.0)
Take food out of the refrigerator	8 (8.0)	23 (23.0)	33 (33.0)	27 (27.0)	9 (9.0)
Make your bed	16 (16.0)	31 (31.0)	24 (24.0)	19 (19.0)	10 (10.0)
Put on socks (panty hose)	10 (10.0)	24 (24.0)	34 (34.0)	24 (24.0)	8 (8.0)
Bend over to clean the bathtub	14 (14.0)	18 (18.0)	33 (33.0)	26 (26.0)	9 (9.0)
Move a chair	6 (6.0)	28 (28.0)	32 (32.0)	25 (25.0)	9 (9.0)
Pull or push heavy doors	14 (14.0)	21 (21.0)	33 (33.0)	22 (22.0)	10 (10.0)
Carry two bags of groceries	4 (4.0)	25 (25.0)	33 (33.0)	24 (24.0)	14 (14.0)
Lift and carry a heavy suitcase	7 (7.0)	22 (22.0)	32 (32.0)	27 (27.0)	12 (12.0)

TABLE 2  
PAIN INTENSITY

Pain Intensity	Frequency	Percent
The pain is mild and comes and goes	3	3.0
The pain is mild and does not very much	22	22.0
The pain is moderate and comes and goes	21	21.0
The pain is moderate and does not very much	30	30.0
The pain is severe and comes and goes	21	21.0
The pain is severe and does not very much	3	3.0
Total	100	100.0

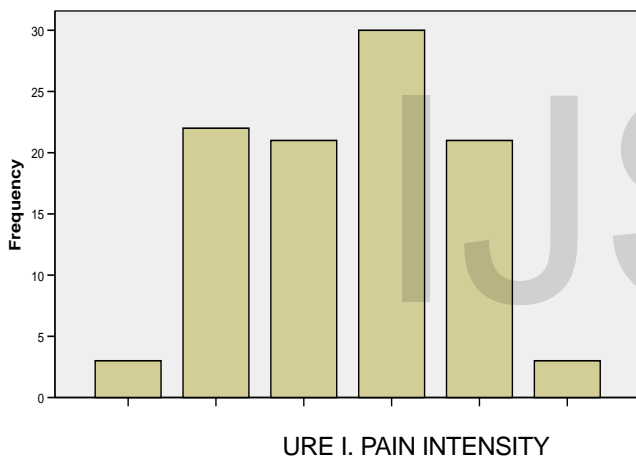


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## 4 DISCUSSION

This study provided us with great knowledge regarding the difficulties faced by the physical therapists working in the CP centers, and about their activities and low back pain prohibit them to do so. There was an acceptable response rate to this validated questionnaire. Many studies have also been done in order to analyses the level low back pain among the practitioners including the physical therapists. They investigated and included different factors. Some of them are Vitaly Rozenfeld et al in 2009, conducted a research upon prevalence, risk factors and preventive strategies in work-related musculoskeletal disorders among the Israeli physical therapists. The findings of their research were 83% was the lifetime prevalence rate of Work-Related musculoskeletal Disorders while the highest disorder found was the low back pain about 80% and also stated that the rehabilitative treatment of this lower back pain will results in the increased pain [7]

Similarly in our research, it was also obtained that majority of

the physical Therapists who work in the CP centers of Karachi do majority of their activities with somewhat difficulty Azize Karahan, Kav S, Abbasoglu A and Dogan N also reported the results of their study on prevalence and risk factors for lower back pain among the variety of Turkish hospital workers including nurses, physicians, physical therapists etc. The result proved that 65.8% of their subject including the Physical Therapists reported that they have past experiences of low back pain while 61.3% of them experienced the pain in the last 12 months as well. In most of the cases it was also stated that the pain started among them as they joined their job in the hospitals. Similarly as far as our study is considered most of the physical therapists working in the CP centers are experiencing lower back pain, and the major reason behind their pain is their work and working conditions as indicated above [8]

Pain intensity also varied among all the physical therapists but the majority of them reported that their pain is moderate and does not very much; still moderate is the second criteria of the low back pain. Having moderate low back pain and carrying out physical activity is very challenging. The basic activities are also under the effects of lower back pain among the physical therapists working in the CP centers. And while carrying out these activities their pain increases, still in some cases they have to carry out the activity. Like in majority of the respondents lifting increase their pain, while almost half of them reported that their pain also increases when they walk. Similarly in some cases sitting increase the pain while in some standing do so. Some physical therapists social life is also affected by the low back pain while in some of them travelling increases their pain, still as data is collected from them they are still giving their services at the CP centers. So in general if someone's basic fundamental requirements will be disturbed this will naturally affects his or her performance as well, and while giving treatment their a time came when they will also be in need of some treatment [9].

As in the majority of the physical therapists working in the CP centers, high association was found with their pain and work so the first option to minimize the low back pain is to improve their working conditions. As we observed, most of the CP centers here in Karachi have every facility for the CP patients providing them with best ergonomically well settings and all the facilities required for their treatment as well, but what they lack in is in providing comforting and easy workstations and working environment for their employees i.e. the Physical therapists.

## 5 CONCLUSION

The study concluded that most of the physical therapists are experiencing lower back pain in their life span, and it was also found that this disorder has a prime relation with their work. The study also concluded that majority of the physical therapists faces difficulty in doing so their day to day life activities and also certain reaching and throwing activities as well. Also low back pain is a hindrance in their daily life activities like sleeping, walking, bending, travelling etc.

## 6 RECOMMENDATIONS



So for the sake of improvement it is the job of the governing body governing those CP centers to help their therapist to improve their conditions. For that purpose certain steps can be taken:

- Provide better working conditions to the Physical Therapists so they are less exposed to risk factors that might lead to lower back pain.
- Develop specific strategies that would help in reducing musculoskeletal disorders in the fields where the physical therapists practice.
- Better maneuvers should be provided to deal with the situations of patients.
- Proper assistance facility should be provided to the physical therapists to minimize their load and to handle a patient with more betterment like during transferring a patient they must have some external support as well.
- Solutions should be made by the governing body of the CP centers to decrease the prevalence of the lower back pain among the Physical therapists working at their centers.
- Proper interventions should be taken in order to minimize the relation of pain with the day to day life basic activities of the Physical therapists of the CP centers.
- Better working guidelines should be provided to the physical therapists in order to maintain their health.

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