

## Disability due to Neck Pain

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### Abstract

Neck pain is the complaint which can hurt anyone in the society at least once the life and may cause interruption of day to day activities. The intensity of pain varies from one individual to individual depending upon the cause from simple mechanical neck pain to discogenic pain. The aim of this study was to evaluate and identify the disability due to neck pain at first session of physical therapy. The data has been collected from all the participants on neck disability index to prior to the physical therapy intervention to measure the level of disability due to neck pain. The result yield that the participants took consultation of physical therapist with moderate level of disability. Although the physical therapist can plan a good prognosis at moderate disability, there is still a lot work to do to avoid and treat the patient with neck pain prior to become disabled moderately.

**Keywords:** Disability; Neck pain; Physical therapy

### Introduction

Neck pain is one of the commonest complain that the physical therapists are supposed to address in his/her day to day clinical practice. It was reported that the one year prevalence of neck pain in academic people was 58.9%. It may range from simple mechanical neck pain to traumatized radiculopathy, post-surgical issues as well. Some of the patients do direct contact to physical therapist for neck pain on the basis of getting previously relieved by the physical therapy, while some may referred by physician, orthopedic surgeon. The usual line of action in physical therapy may include a combination of electrotherapy, exercise or manual therapy, counseling or postural education, depending upon the presenting condition, severity and disability. Self-reported disability and other outcome measures are an important part of patient assessment and provide important clinical information for clinician [1]. It is important to measure the neck pain related disability and function in order to assess the pre and post treatment patient outcomes, as well as give valuable information to other stakeholders [2]. In mid 90s, the researcher enforce the use of disablement model that links an illness to functional consequences and disability in physical therapy research and practice and the journal of manipulative and physiological therapeutics published the neck disability index (NDI) in 1991 developed by Dr. Vernon [3,4]. The NDI has been shown to be highly reliable on test-retest reliability [5]. It has also been shown to be valid by comparing NDI scores to other measures of pain and disability [5]. The question includes ADL like personal care, reading, lifting, driving, sleeping, concentration and headache, recreational activities and pain intensity. Every question is measured on a scale from zero (no disability) to five. The greater the NDI score, greater is the disability due to neck pain.

As the common practice in our society relating the health status is to ignore and delay the visit to health care providers, may be due to economic, social and environmental barriers. Hence, the objective the objective of this study was to find out level of disability due to neck pain at the first encounter with the physical therapist.

### Methods

The data of every consecutive patients coming with neck pain to one of the two physical therapy clinics of Karachi (Ibn e Seena Hospital Complex and Baqai Medical University). Total 103 patients were asked to participate in the study and out of those 75 patients (31 male, 44 female) with an average age of 45 years were included after taking the consent from March 2011 to June 2011. All the patients provided the demographic information

and completed the NDI questionnaire with the help of the attending physical therapist at the first examination. All those patients are included who had reported a primary complain of neck pain with or without referral of symptoms to the upper extremity or extremities. All those patients were excluded who had given history of a whiplash injury with the past 6 weeks and prior surgery to their cervical or thoracic spine. The data were analyzed through descriptive statistics.

### Results

The participants experienced 2.53 intensity of neck pain on an average with average squared variation of 1.41 scores. About 25% of patient reported 2 score pain intensity and 75% of patient reported 3 score pain intensity. Patient's reported 1.35-3.71 (Mean  $\pm$  SD) score pain intensity. The participants experienced difficulty in personal care of about 1.72 with average squared variation of 0.74 scores. About 25% of patient reported 1 scores personal care and 75% of patient reported 2 score personal care. Patient's reported 0.86-2.58 (Mean  $\pm$  SD) score personal care. The participants also experienced 2.25 difficulties in lifting on an average with average squared variation of 2.02 scores. About 25% of patient reported 1 score lifting problem and 75% of patient reported 4 score lifting problem. Patient's reported 0.83-3.67 (Mean  $\pm$  SD) score lifting. The participants experienced 2.2 problems in reading due to neck pain on an average with average squared variation of 1.19 scores. About 25% of patient reported 1 score reading problem and 75% of patient reported 3 score reading problem. Patient's reported 1.11-3.29 (Mean  $\pm$  SD) score reading problem. The participants experienced 1.2 intensity of headache on an average with average squared variation of 1.05 scores. About 25% of patient reported 0 score pain intensity and 75% of patient reported 2 score pain intensity. Patient's reported 0.87-0.93 (Mean  $\pm$  SD) score headache. The participants experienced difficulty in concentrating on an object about

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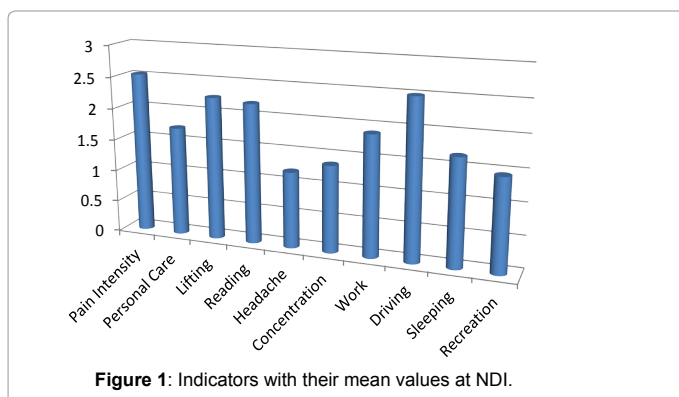
1.97 due to neck pain on an average with average squared variation of 1.23 scores. About 25% of patient reported 1 scores concentrating issues and 75% of patient reported 2 score. Patient's reported 0.27-2.47 (Mean ± SD) score concentration. The participants also experienced problems in performing their routine tasks/ work for 1.9 due to neck pain on an average with average squared variation of 1.32 scores. About 25% of patient reported 1 score and 75% of patient reported 2 score. Patient's reported 0.76-3.04 (Mean ± SD) score of facing problems if doing work. The participants experienced 2.5 driving on an average with average squared variation of 2.58 scores. About 25% of patient reported 1 scores driving and 75% of patient reported 3 score. Patient's reported 0.90-4.10 (Mean ± SD) score for driving problems. The participants experienced sleeping discomfort 1.68 due to neck pain on an average with average squared variation of 1.05 scores. About 25% of patient reported 1 score and 75% of patient reported 3 score for sleeping disturbance. Patient's reported 0.66-2.70 (Mean ± SD) score sleeping problem. The participants experienced 1.46 problems in recreational activities with average squared variation of 1.38 scores. About 25% of patient reported 1 score and 75% of patient reported 2 score. Patient's reported 0.29-2.63 (Mean ± SD) score recreational problems (Tables 1 and 2 and Figure 1).

S. No.	Indicators	Mean Score
1.	Pain Intensity	2.53
2.	Personal Care	1.72
3.	Lifting	2.25
4.	Reading	2.2
5.	Headache	1.2
6.	Concentration	1.37
7.	Work	1.9
8.	Driving	2.5
9.	Sleeping	1.68
10.	Recreation	1.46

Table 1: Mean scores of NDI.

S. No.	Indicators	Q1	Q3
1.	Pain Intensity	2	3
2.	Personal Care	1	2
3.	Lifting	1	4
4.	Reading	1	3
5.	Headache	0	2
6.	Concentration	1	2
7.	Work	1	2
8.	Driving	1	3
9.	Sleeping	1	3
10.	Recreation	1	2

Table 2: Percentile value of NDI.



## Discussion

The research conducted on a limited population hence could not be generalized over the population of Karachi. The researchers observed multiple reasons behind the late contact with physical therapist and include the poor awareness, inappropriate referral system to physical therapy from different health care professionals, the careless attitude of patients toward their health and the economic conditions. The researcher strongly realize that there is a lot of work need to improve the general public awareness regarding the physical therapy services and the health problems which need early response to avoid disability. In addition to the general public, there is also a need of referral system among the health care professionals for the betterment of patient community. The physical therapist should work in close coordination with the primary referral physician and discuss the day to day progress of the patient. It may improve the quality of the service and enhance the confidence of the physician as well. The physical therapy service providers may arrange a join workshop or professional developmental program with the help of physicians and surgeons to improve and exchange the new techniques among each other. Apart from the public and health care awareness, there is very important assumption that looks real in Pakistani perspective and that is the economic situation of the country. There is no subsidized service, insurance policies from the government or private sector that leads to overburden the patient. The researcher believe that if the government or some organizations provide the health cover policies to the community that includes the physical therapy, may reduce the disability index due to neck pain and play an important role to change the careless behavior of the society.

## Conclusion

The results concluded that the participants reported their physical therapist with moderate pain and reduced their routine activities from mild to moderately. Despite of all considerable factors behind the late approach to take physical therapy measures, one should think about the preventive measures. The health care professionals must pay some attention in prevention rather than treating the injuries. As the result suggest the highest mean score for pain intensity that reflects most of the patients want ease in pain that ultimately improve the rest of the factors.

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