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LOW BACK PAIN;
LEVEL OF DISABILITY IN NURSES

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ABSTRACT… Objectives: To determine the level of disability in nurses with low back pain. **Background:** Pain is unpleasant expressive condition which is felt in the brain and arises in a part of the body. In spite of, this term is a subjective sensation. In health care workers LBP is the major cause of morbidity. Nurses are more prone to vulnerable Low Back Pain in the health care services. **Study Design:** Descriptive Cross Sectional. **Setting:** Data was collected from 273 nurses from different hospitals of Lahore Pakistan like Jinnah hospital, Children hospital, Mayo hospital, Sheikh Zaid hospital, General hospital, Punjab Institute of Cardiology, Services Hospital, Ch. Akram Hospital. **Period:** 06 months. **Methodology:** Oswestry Disability Index questionnaire was used for data collection. Descriptive statistic was used for the analysis of the data which paying attention through frequency tables. **Results:** The total mean score of Oswestry scale of disability was 10.81±(SD=11.028).Total mean age 29.11±(SD=6.001). Level of disability was found highest in lifting due to backache in nurses with mean score was 2.42+1.60. **Conclusion:** Level of disability in nurses with low back pain was found to be in mild state. The highest level of disability was found in lifting due to low back pain in nurses.

Key words: Low Back Pain, Nurses, Disability.

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INTRODUCTION

Pain is unpleasant expressive condition which is felt in the brain and arises in a part of the body. In spite of, this term is a subjective sensation. In health care workers LBP is the major cause of morbidity. Nurses are more prone to vulnerable Low Back Pain in the health care services.[1]

Several studies showed the high prevalence of low back pain in nurses. Nurses working posture is crooked or bowed with heavy lifting and twisted posture. The studies of biomechanics have confirmed that such movements, positions and postures produces the high spinal stresses.[5]

Back pain is the most common cause for functional disability. Almost 90% population of the world are affected by back pain. It is stated a particular physical problem that affects the working individuals. It considered the most leading cause of disability in the nurses. Because of occupation force nurses suffers from rigorous distress and disability due to back pain in their life and it affects their social life, travelling, lifting, standing, sitting, personal care, walking, sleeping and employment. Pain in the back is a main reason of disability and absence at work. Due to the large quantity of physical job, nurses are more prone to disability.[6]

Nurses experience difficulty to perform their regular activities such as walking, travelling, standing, walking, sitting, and home making, personal care, sleep etc.[7]

Previous studies have revealed that the factors not related to the disease itself describe the disability to some extent. Social life and work related factors e.g. difficulty in to perform the work in the environment and fear are considered the most probable disability determinants.[6]

This study has not been done before in Lahore Pakistan region where level of disability in nurses with low back pain has been considered. I observed in different hospitals that the jobs and

life of nursing staff has been affected by low back pain. So, I want to measure disability in their life due to low backache.

By observing the individuals, who comes with the pain complains in the back might develop main disabilities in their social, and physical life. This could influence their job. Physical condition includes the deterioration of the general health and loss of the physical functions. In social condition individuals are unable to take part in social activities. Psychosocial conditions affect the individual sleep, increase the anxiety, and level of depression.

METHODOLOGY

The study was Descriptive cross sectional study. Simple Convenient sampling technique was used. The survey was conducted in the hospitals of Lahore Pakistan region among nurses. Data was collected from General Hospital, Children Hospital, Jinnah Hospital, and Sheikh Zaid Hospital, Mayo Hospital, Ch. Akram Hospital and PIC. Duration of this research was three months after the approval of synopsis. Sample size is 273 with margin of error 5%andconfidence level of 98%and response distribution of 85

$X=Z(c/100)2r\ (100-r)$

$N=N\ x/((N-1)E2 + x)$

$E=Sqrt[(N - n)x/n(N-1)]$

Population Size = "N" Fraction Responses = "r"Z(c/100) is the critical value for the confidence level "c".

Reference: Valid source for sample calculation. http://www.raosoft.com/samplesize.html.

Nurses having back pain more than six months. Registered nurses between 20-40 years of age Minimum 1 year service as a nurse were included in this study and those nurses who suffer from systemic, inflammatory and traumatic injuries e.g. cancer, tuberculosis, HIV, osteoarthritis, rheumatoid arthritis and traffic accidents etc. Pregnant nurses or with the history of Obstetrical or Gynecological surgery are excluded.

The Modified Oswestry low back pain Questionnaire was distributed among the nurses of hospitals of Lahore Pakistan Data was processed by using 21.0 version of SPSS software program. Frequency table, descriptive statistic was used for data analysis. Statistical significance level is 0.05 or less will be used. The results were presented in percentage.

Level of disability is measured according to Oswestry disability index scoring:

- 0% to 20% (Minimal Disability)
- 21% to 40% (Moderate Disability)
- 41% to 60% (Severe Disability)
- 61% to 80% (Crippled)
- 81% to 100% (Bed ridden patients)

RESULTS

Sr. No	Variables (PAIN)	Frequency	%Age
1	I have no pain at the moment	139	50.9
2	The pain is very mild at the moment	102	37.4
3	The pain is moderate at the moment	26	9.5
4	The pain is severe at the moment	4	1.5
5	the pain is very severe at the moment	1	0.4
6	The pain is the worst imaginable at the moment	1	0.4

	N	Minimum	Maximum	Mean	Std. Deviation
Score	273	0	62	10.81	11.028

	N	Minimum	Maximum	Mean±SD
Pain intensity	273	1	6	1.64+ 0.792
Personal care	273	1	4	1.27+ 0.574
Lifting	273	1	6	2.42+ 1.600
Walking	273	1	5	1.29+ 0.623
Sitting	273	1	6	1.35± 0.790
Standing	273	1	6	1.67± 0.828
Sleeping	273	1	6	1.74± 1.106
Sex life	273	1	4	1.25± 0.525
Social life	273	1	4	1.18± 0.609
Travelling	273	1	6	1.60± 0.926

Descriptive statistics of disabilities

DESCRIPTION

Total Mean for Oswestry Disability Index in low back pain was 10.81 SD±11.028. Minimum score was 0 and Maximum score was 62. Level of disability was found highest in lifting due to backache in nurses with mean score was 2.42+1.60.

Frequency of nurses who can travel anywhere without pain were 171 (62.6%), who can travel anywhere but gives them extra pain were 51 (18.7%), 45(16.5) nurses said that pain was bad but they can manage the journeys over two hours, 3(1.1%) nurses complaint that pain restricted them from journeys of less than one hour, 3 (1.1%) nurses complaint that pain prevented them from travelling. Frequency of nurses who have normal social life and gives no extra pain were 246 (90.1%), whose social life was normal but social life caused the pain to increase were 11(4.0%), while 9(3.3%) nurses said that that pain has no major effect on their social life, and 7(2.6) nurses complaint that pain has restricted their social life. Frequency of nurses who have normal sex life but cause no extra pain were 214 (78.4%), whose sex life was normal other than causes some extra pain were 53 (19.4%), whose sex life was nearly normal but very painful were 3(1.1%) whose sex life was strictly limited by pain were 3(1.1). Frequency of nurses who did not have disturbed sleep were 135(49.5%), who have disturbed sleep occasionally were 113(41.4%), who had less than 6 hours sleep due to pain were 11(4.0%), who had less than 2 hours sleep due to sleep were 1(0.4%), who had pain that prevented them from sleep were 12(4.4%). Frequency of nurses who stood as long as they want without causing extra pain were 126(46.2%), nurses who stood can stand as long as they want but it gives them extra pain were 128(46.9%), nurses who were not able to stand for more than 1 hour was 12(4.4%), nurses who were not able to stand for more than 30 minutes were 1(0.4%), nurses who were not able to stand for more than 10 minutes were 3(1.1%), nurses who were not able to stand due to pain were 3(1.1%). Frequency of nurses who can sit in any chair as long as they like were 218(79.9%), nurses who can only sit in their favorite chair as long as they like were 24 (8.8%), who have pain that prevents from sitting more than one hour were the 26(9.5%), who have pain that prevents from sitting more than 30 minutes were 2(0.7%) nurses, the 2 (0.7%) nurses who have pain prevents from sitting more 10 minutes, pain prevents the 1 (0.4%) nurses from sitting at all. Frequency of nurses who did not have pain that prevent from walking any distance were212 (77.7%), who have pain that prevents from walking more than 1 mile were 50(18.3%), who have pain that prevents from walking more than ½ mile were the 7(2.6%), who have pain that prevents from walking more than 100 yards were the 2(0.7%), who can only walk using a stick or crutches were 2(0.7%).

DISCUSSION

The study of Sikiru and Hanifa showed that 130 nurses were present with mild pain and their daily activities are not disturbed by back pain, while study 102 nurses had mild pain and their daily

activities are not disturbed. 116 in study of Sikiru and Hanifa indicated that their pain in the back was moderate and in my study 26 nurses had moderate back pain. 54 nurses complain that it was severe pain in the back and in this study 4 nurses had severe pain.

El-Najjar et al., 2014 observing the individuals, who comes with the pain complains in the back might develop main disabilities in their social and physical life. In social condition individuals are unable to take part in social activities. Psychosocial conditions affect the individual sleep. While in this study majority of nurses had normal social life and it gives no extra pain and their sleep is never disturbed by pain.

In the literature of Heliövaara et al., 1989 occurrence of pain in back and its effects are handicap and disability. It was calculated that the job disability decreased the ability for daily jobs apart from job, and the decreased ability for spare time activities. In this study majority of nurses said their job and daily activities is never disturbed by pain.

In the study of Marin et al., 2006 association among disturbance of sleep and chronic back pain patients referred to a rehab center and physical medicine. Conclusion of this study is that chronic back pain considerably affects the sleep quality. 55% patients complain the restless or light sleep subsequent to pain commencement. While in this study 49.5% nurses said that their sleep is never disturbed by pain.

In the study of Salvetti et al., 2012, occurrence of disability amongst the people was moderate to severe. And in this study occurrence of disability amongst nurses was mild.

In study of[20], the pain was considered high, disability level was established and considered severe and the physical excellence of life field appeared as the mainly impaired and strongly related with the level of disability. And in this study pain intensity was measured mild. And mild level of disability was measured in nurses.

CONCLUSION

Level of disability in nurses with low back pain was found to be in mild state. The highest level of disability was found in lifting than in sleeping, sitting standing and travelling due to low back pain in nurses according to The Modified Oswestry low back pain Questionnaire.

LIMITATIONS

20% nurses were non respondent.

There was limited time to conduct the research hence it was conducted only in Lahore city and not a huge number of nurses could not be concerned.

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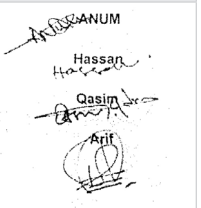
1	Anam Saleem	Thesis writing	
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