

Association between neck pain and functional disability among nurses

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Objective: To determine the impact of neck pain on functional disability among nurses. **Methodology:** In this cross-sectional survey, data were collected from Jinnah hospital, Children Hospital and Ittefaq Hospitals, Lahore, Pakistan from January 2017 to June 2017 using Neck Disability Index and Numeric Pain Rating Scale. Data were analyzed through SPSS version 21. **Results:** The mean age of participants was 25.77±4.72 years (range 21 to 42). The mean pain

score was 5.21±1.47. Out of 250 subjects, 148(59.2%) had moderate disability, 58(23.2%) mild disability, 23(9.2%) severe disability and 21(8.4%) no disability.

Conclusion: These findings show an association between neck pain and functional disability. As Neck pain increased from mild to moderate and severe levels, it indicates more neck disability among nurses. (Rawal Med J 201;43:242-244).

Key Words: Neck pain, Neck disability, nurses

INTRODUCTION

Medical personnel provide human services to many patients with different ailments and are liable to develop work related musculoskeletal disorders (WMSD).^{1,2} Nursing assistants endure from work-related pain and WMSD more often.³ Nursing population is expected to provide nonstop physical requests leading to musculoskeletal strains.⁴ Studies of WMSDs among health care provider have mainly focused on physicians, dentist, physical therapist, laboratory technician and nurses.⁵ Musculoskeletal disorder (MSDs) are inflammatory or degenerative states that affect muscles, tendons, ligaments, joints and nerves, MSDs are for the most part brought on by manual labor, lifting heavy loads, overexertion, or attempting a complex posture.⁶ Poor effort execution might result in physical and psychosocial issues.⁷ Injury and illnesses managed in the work environment need wellbeing.⁸ Musculoskeletal disorders are basic "around enlisted nurses, minimal longitudinal examine need been led should analyze this issue starting with nursing training to working life."⁹ Forward neck posture might cause cervical pain. Cervical muscles pains might get aggravated as they gain of effort additional time with hold the mind already in unbalanced posture.¹⁰ The purpose of the study was to determine the impact of neck pain on functional disability among nurses of

Lahore, Pakistan.

METHODOLOGY

In cross sectional study, a questionnaire was distributed among 250 nurses of Jinnah hospital, Children Hospital and Ittefaq Hospitals, Lahore, Pakistan from January 2017 to June 2017. Data was collected through Neck Disability Index and Numeric Pain Rating Scale. Nurses between age group 21-42 years were included in the study whereas those with diabetes mellitus, osteoarthritis or any other systemic disease were excluded. Numeric Pain Rating Scale was used to determine the pain intensity in which 0 scale demonstrated 0 (no pain), 1-3 scale (mild pain), 4-7 (moderate pain) and 8-10 (sever pain) of neck pain. Data was analyzed through SPSS version 21 and Chi-square tests were used for data analysis. Level of significance was kept at ($p \leq 0.05$).

RESULTS

The mean age was 25.77±4.72 years (range 21 and 42). Mean pain was 5.21±1.47 (range 1 and 9 points). The majority, 135(54%) of subjects had moderate disability of personal care followed by 62(24.8%) mild disability, 28(11.2%) no disability, 24(9.6%) sever disability and 1(0.4%) complete disability while 131(52.4%) had moderate lifting disability

followed by 66(26.4%) mild disability, 33(13.2%) no disability and 20(8.0%) severe disability, 133(53.2%) had moderate working disability followed by 60(24.0%) mild disability, 31(12.4%) severe disability and 26(10.4%) no disability (Table 1). There was significant ($p=0.029$) association between neck pain and functional disability association between neck pain and functional disability.

Table 1. Frequency and percentage of personal care, lifting and working (N=250).

Variables	Construct	Frequency	Percentage
Personal care	No disability	28	11.2%
	Mild disability	62	24.8%
	Moderate disability	135	54.8%
	Severe disability	24	9.6%
	Complete disability	1	0.4%
Lifting	No disability	33	13.2%
	Mild disability	66	26.4%
	Moderate disability	131	52.4%
	Severe disability	20	8.6%
Working	No disability	26	10.4%
	Mild disability	60	24%
	Moderate disability	133	53%
	Severe disability	31	12.4%

Table 2. Association between Pain Intensity and Neck Disability (N=250).

Association		Neck Disability Index				P-Value
		No Disability	Mild Disability	Moderate Disability	Severe Disability	
Numeric Pain Rating Scale	Mild	5	10	7	3	0.029
	Moderate	16	44	133	19	
	Severe	0	4	8	1	

There were 25 subject of mild pain rating scale out of which 5 had no disability, 10 had mild disability, 7 had moderate disability and 3 had severe disability. There were 212 subjects out of whom 16 had no disability, 44 had mild disability, 133 had moderate disability and 19 had severe disability. There were 13 subjects out of which 0 has no disability, 4 had mild disability, 8 had moderate disability and 1 had severe disability (Table 2).

DISCUSSION

Functional outcomes included across the board utilization for instruction furthermore over-the-counter medications and significant negative influence once exercises of every day existing.¹¹ A

study by Tinubu et al showed that work in the same positions for long periods, lifting alternately transferring indigent patients subjected the nurses to WMSDs.¹² Getting help on taking care of massive patients, adjustment about nursing methods and modifying patient's/nurse position were highest point adapting methodologies.¹²

The study by Harcombe et al reported that work strain needed the strongest association with neck pain (OR 3.46, 95% CI 1.30 to 9.21) and mental wellbeing status were weakly connected with bring down chances from having MSDs.¹³ The study by Carvalho et al showed that the most elevated risk might have been for widespread pain and good work environment safety buffered the effects.¹⁴ The study by Jorgensen et al reported that patients with higher neck disability list scores had more direct and extreme disability.¹⁵

This study by Aghilinejad et al showed that working in the same position for in long periods, attempting previously, unbalanced alternately cramped positions, taking care of top number about patients alternately tests in person day were to make those a large portion ordinarily accounted particular occupation danger component that helped the advancement of WMSD.¹⁶ Amin et al reported that non-shift laborers had a greater amount neck MSDs over shift specialists.¹⁷

CONCLUSION

Our study showed a pronounced association between neck pain and neck disability. Neck pain was common musculoskeletal disorder among hospital nurses. As neck pain increased from mild to moderate and severe levels, it indicates more neck disability among nurses.

Author Contributions:

Conception and design: Iqra Khadim
 Collection and assembly of data: Iqra Khadim
 Analysis and interpretation of the data: Fahad Tanveer
 Drafting of the article: Fahad Tanveer
 Critical revision of the article for important intellectual content: Ashfaq Ahmad
 Statistical expertise: Fahad Tanveer
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