

Prevalence of musculoskeletal complaints in working female nurses in tertiary care hospitals

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Objective: To determine the prevalence of musculoskeletal complaints in working female nurses in Peshawar, Pakistan.

Methodology: This cross-sectional survey was conducted in government tertiary care hospitals of Peshawar using self reported Questionnaire and included 200 professional nurses, who were working in tertiary care hospitals of Peshawar and were selected conveniently for the study.

Results: The mean age, height, weight and BMI of the subjects were 27.09 years, 5.17ft, 57.77 Kg and 23.09 Kg/m,² respectively. The respondents reported a 12-month prevalence rate of work related musculoskeletal disorders at different

body regions to be 86%. During the previous 12 months, the spine was the most affected part in 2 out of 3 individuals evaluated, followed by the upper limbs and the lower limbs. The back, neck and shoulder were the areas with the highest prevalence of complaints followed by the knee and the wrist/hand.

Conclusion: The prevalence of chronic low back pain was significantly higher among the nurses. Prevalence of neck pain and most of the other work related musculoskeletal disorders were also high among nurses. (Rawal Med J 201;42:40-42)

Keywords: Lower back, lower extremity, musculoskeletal disorders, neck pain.

INTRODUCTION

Work related disorder incorporates an extensive variety of inflammatory and degenerative conditions influencing the muscles, ligaments, tendons, nerves, bones and joints. Immediate effect will be very small, yet after a repetitive stress/strain, constant micro trauma causes damage.¹ Musculoskeletal disorder (MSD) is one of the most prevalent and widely recognized health problem in working population of the society. MSD has bad effect on quality of life along with noticeable economic burden in terms of cost.^{2,3}

It is demonstrated that psychosocial components, individual elements, work environment physical prerequisites and work environment hierarchical elements have been connected with the risk.^{2,4,6} Various risky elements like age, gender, time period of employment, bad postures, prolonged postures, static works, and repetitive work were observed to be the reason for MSD^{4,7-12.}

Musculoskeletal conditions, including pain, weakness and abnormal sensation, are accounted for to be connected with extensive variety of

occupations.¹³ Risk factors reported in a Saudi study of teachers were type of school, age, weight, number of children, and number of teaching years.¹⁴ The aim of this study was to determine the prevalence of musculoskeletal complaints in working female nurses in Peshawar, Pakistan.

METHODOLOGY

This cross sectional study was conducted on professional nurses at tertiary care hospitals of Peshawar in 2015. A sample of 200 nurses aged between 25 and 40 years and work duration between 6-15 hours participated in the study. Those with inflammatory conditions, degenerative conditions, time duration less than 6 hours or more than 15 hours were excluded from the study.

A self-administered questionnaire was used for the collection of data which was analyzed using SPSS version 20.

RESULTS

A 12-month prevalence rate of work related MSD at any region of body was 86% (172 out of the sample).

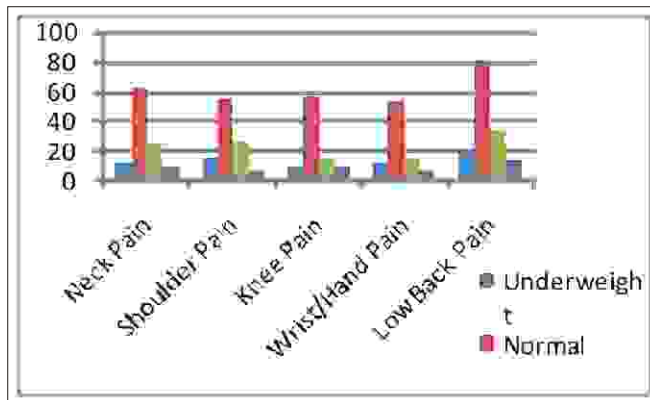
During the previous 12 months, the spine was the most affected part in 2 out of 3 individuals followed by the upper limbs and the lower limbs. The back, neck and shoulder were the regions with the highest prevalence of symptoms followed by the knee and the wrist/hand (Table).

Table. Work related musculoskeletal disorders.

Disorder/12 months	Number	Percentage
Low Back	146	73
Neck	107	53.5
Shoulder	99	49.5
Knee	90	45
Wrist/Hand	86	43

Among underweight respondents, neck pain was found in 12, shoulder pain in 14, knee pain in 9, wrist/hand pain in 12, low back pain was found in 19 subjects. Among Overweight respondents, neck pain was found in 25, shoulder pain in 26, knee pain in 15, wrist/hand pain in 15, low back pain was found in 33 subjects.

Fig. BMI Vs MSK disorder.



Among Obese respondents, neck pain was found in 8, shoulder pain in 6, knee pain in 9, wrist/hand pain in 6, low back pain was found in 13 subjects (Fig.).

DISCUSSION

Our study was done by using self reported questionnaire hence prevalence of Work related musculoskeletal disorders (WMSD) among nurses working in city hospitals in different countries with those prone to the same level of risks may be very dissimilar due to their disparities in feelings and

awareness. In our study, nurses working in the teaching hospitals reported MSD of 86% over the time period of 12 months. This was lower than previous studies on nurses from Japan (91.9%) and higher than studies from Sweden (84%) and United States (72.5%).¹⁵⁻¹⁷ In a study from Nigeria, 12 months prevalence of self reported WMSD at anybody region was 90.7%.¹⁸

Most prevalent WMSD stated in nurses from Japan was that of shoulder region (71.9%) followed by low back (71.3%), neck (54.7%), and upper back regions (33.9%).^{19,20}

Limitation of study includes a small sample size. Further study is recommended ascertain risk factors like working in same position for prolong period of time, bending forward, twisting movements, lifting heavy objects/patients, prolong duty hours/work duration.

CONCLUSION

We found a high prevalence of low back pain, neck pain, shoulder pain, and knee pain over a 12 month period of time among nurses working in teaching hospitals of Peshawar.

Author Contributions:

Conception and design: Aftab Ahmad Collection and assembly of data: Aneela Zain Analysis and interpretation of the data: Aftab Ahmad
 Drafting of the article: Samina Naz
 Critical revision of the article for important intellectual content: Muhammad Daud
 Statistical expertise: Aneela Zain
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