

# Frequency of Work-Related Musculoskeletal Problems among Butchers

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## Author's Contribution

<sup>1,2,3,4</sup> & <sup>5</sup>Conception and design, Collection and assembly of data, Analysis and interpretation of the data, <sup>2,3,4</sup>Critical revision of the article for important intellectual content, Statistical expertise <sup>2</sup>Final approval and guarantor of the article.

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## ABSTRACT

**Background:** A lot of workers of different professions tolerate health problems linked with musculoskeletal pain and work-related injuries, as a whole known as work-related musculoskeletal disorders. Butchers often complain about that due to sedentary posture.

**Objective:** To assess the prevalence of work-related musculoskeletal disorders among butchers.

**Methods:** A cross sectional survey was conducted on 150 butchers by purposive sampling. Data was collected from different meat markets in Lahore using standardized Nordic musculoskeletal questionnaire. Data was entered and analyzed using SPSS and results were shown in form of graphs and charts.

**Results:** Frequency of neck, Shoulders, Elbows, Wrists/hands, Upper back, Lower back, Hips/Thighs, Knees and Ankles/Feet in last 12 months was 27.3%, 44.0%, 20.7%, 30%, 25.3%, 42.0%, 29.3%, 15.3% and 18.0% respectively. In last 7 days 10% neck pain, 12.7% shoulder pain, 6.7% elbow pain, 12.7% hands/wrist pain, 8.7% upper back pain, 16.7% lower back pain, 8.7% hips/thigh pain, 7.3% knees pain and 8.7% feet/ankle pain had reported.

**Conclusion:** There was higher frequency of work-related musculoskeletal problems including pain among butchers denoting their bad posture work habits.

**Keywords:** Musculoskeletal disorders.

## Introduction

A lot of workers of different professions tolerate health problems linked with musculoskeletal (MSK) pain and work-related injuries, as a whole known as work-related musculoskeletal disorders. The symptoms of these issues range from mild to severe and can be a reason of permanent disability.<sup>1</sup> Being physically fit and active is advantageous for our MSK system, but an excess of physical tasks may cause damage to it. External forces can lead to acute trauma during a road traffic accident, result in fractures, lacerations and contusions. However, work-related musculoskeletal disorders WRMSDs are mostly collective problems.<sup>2,3</sup>

Musculoskeletal injuries and disorders of hand, wrist and elbow can appear in their assisting muscles, capsules and

ligaments. Trapping of the ulnar, median and radial nerve in wrist or hand can occur in injuries which cause neuropathies.<sup>4,5</sup> Butchers who are working in sitting position having problems in upright posture, repeated arm actions, energetic work and inadequate rest. Psychological risk factors include pain behavior and stress.<sup>6</sup> WRMSD's can affect almost all regions of the body but neck, shoulders and back is affected in more than 50% of cases. Back issues influence a lot of peoples around the globe, i.e. 70-80% people.<sup>7</sup>

The prevalence of WRMSD's varies from 63 to 93% around the globe.<sup>8</sup> Even though a large number of studies have been conducted on back and upper limb

musculoskeletal disorders but the etiology of these problems is not completely understood.<sup>9</sup>

The shoulder girdle is made up of three joints namely Acromio-clavicular joint (ACJ), Gleno-humeral joint (GHJ) and sterno-clavicular joint (SCJ). Anatomical structure of Gleno-humeral joint (GHJ) is responsible for less stability. In overhead movements joint stability and normal movements of shoulder are achieved by the help of rotator cuff muscles.<sup>10</sup>

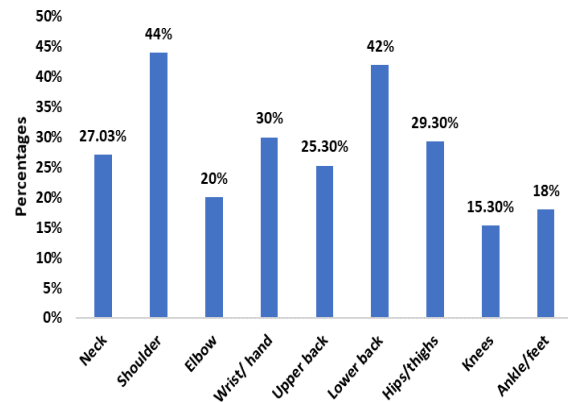
A number of studies have been done to evaluate musculoskeletal disorders among peoples of different professions but no such study was done on butchers so purpose of this study was to assess the presence of WRMSD's among butchers working in Pakistan. These sorts of studies would create awareness among butchers regarding their posture and related problems

## Methodology

Total 150 butchers were included in this study. The cross-sectional survey was conducted by purposive sampling from different meat markets of Lahore. The male butchers with age of (18-55) years were included in study and butchers with recent injury, fracture, any degenerative disease, any trauma and infection as well as metabolic disorders were excluded from the study. The study design was cross-sectional survey and data was collected by Nordic musculoskeletal questionnaire after taking informed consent.

## Results

The results showed a significant frequency of WRMSDs among butchers. Frequency of neck was (27.3%), Shoulders 44.0%, Elbows 20.7%, Wrists/hands 30%, Upper back 25.3%, Lower back 42.0%, Hips/Thighs 29.3%, Knees 15.3% and Ankles/Feet 18.0% in last 12 months. In last 7 days 10% neck pain, 12.7% shoulder pain, 6.7% elbow pain, 12.7% hands/wrist pain, 8.7% upper back pain, 16.7% lower back pain, 8.7% hips/thigh pain, 7.3% knees pain and 8.7% feet/ankle pain had reported.



**Figure 1. Shows the percentages of different region wise musculoskeletal problems.**

## Discussion

Karahan et.al done a research in 2009 and presented a report of prevalence and risk factors linked with musculoskeletal disorders among hospital staff. It was resulted that 65.8% individuals had low back pain and 61.3% individuals reported this pain during the last 12 months. Prevalence was found greater in nurses 77.1%. So current study's theme was to evaluate the MSK problems in butchers which is due to their posture as in above population.<sup>11</sup>

Similarly, this study showed 42% prevalence of low back pain among butchers. DR Smith et.al carried research in 2006 and found that the prevalence of low back pain 43.7% was more than other regions of the body. Neck, Shoulder and upper back issues were 42.3%, 37.8% and 29.0% respectively.<sup>12</sup>

Similarly, according to current findings frequency of low back pain was also significant. The frequency of low back pain was 42.0%. Followed by Neck 27.3%, Shoulder 44.0% and upper back 25.3%. JE Cromie et.al led an investigation in 2000 and reported 91% prevalence of WRMSDs. 1 in 6 individuals changed or quit the profession because of these disorders. High prevalence of disorders in several parts of body was found in young individuals. Greater prevalence was also seen in the individuals who had awkward postures.<sup>13</sup>

In current study, persons having awkward postures, disturbed body mechanics were at a greater risk of musculoskeletal disorders. S. Nicoletti et.al studied in

2008 and found that movement in annoying postures and repeated actions are risk factors of MSDs.<sup>14</sup>

Similarly, in my research, I found that awkward postures and repeated actions are strongly associated with musculoskeletal problems. Z Ahmad et.al in 2017 researched to check the prevalence of musculoskeletal problems in Bankers, Teachers and other professionals. 762 individuals were interviewed in which 35% were males and 65% were females. 362 teachers participated in the study and it was found that teachers are at greater risk of MSK disorders than other professionals.<sup>15</sup>

## Conclusion

There was higher frequency of work-related musculoskeletal problems including pain among butchers that may be related to their bad working posture habits.

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