# Frequency of Shoulder Pain and Level of Disability among Laborers

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## Highlights:

- 90 Laborers were included
- Shoulder pain and disability index SPADI was used to evaluate shoulder pain and disability level
- The frequency of shoulder pain among laborers was 13.3%

## Abstract:

Shoulder pain has remarkable effect on disease absence, usage of fundamental and assistant wellness services and untimely evacuate from the work market. A few work-related problems have been related with shoulder discomfort and pain, these consist of work with lifted arms, troubling rhythmic work, and commanding efforts.

## Objective:

To determine the frequency of shoulder pain and level of disability among laborers.

## Methodology:

90 laborers of Lahore were included using non probability convenient sampling. Inclusion criteria was work related shoulder pain, males, with age range of 20-60 years, with previous history of trauma or injury, fracture, dislocation or any systemic disorder were excluded. Data was collected by modified shoulder pain and disability index SPADI questionnaire. Data was analyzed by using SPSS versio 20.0.

## Results:

Mean age was found to be 33.96 (±11.16 SD) years. There were 27.8% participants with no pain while, 69.8% reported mild pain and only 2.4% reported moderate pain. There were 43.3% participants with no disability while, 54.4% had mild disability and 2.3% moderate disability. SPADI score was 7.92 (±9.138 SD).Pain frequency observed was 13.33%.

## Conclusions:

It was observed that the frequency of shoulder pain and level of disability among the laborers was mild to moderate.

## Key Words:

Pain, Disability, Shoulder Joint, Occupational Disorders, Laborers

## Introduction:

Shoulder pain has impressive effect on disease absence, usage of fundamental and assistant wellness services and untimely evacuate from the work market. A few words related liability have been related with shoulder objections and messes; these consist of work with lifted arms, troubling rhythmic work, and commanding efforts. Occupation is a big resource of dangerous liability distressing the bear, and furthermore, practical focus of precautionary procedures. Trade physical hazard connected to shoulder sickness are, intense manual effort, working in bad body position, multiple appointments and shaking, and mainly their mixture.[1-3]

The frequency of shoulder indications appears to be moderately elevated, shifting from 6 to 25% in the universal residents. Throughout the earlier periods, the information of etiological elements, and work-related disclosure in exacting, increased and what's more, business linked causes such as multiple jobs, shaking, and bad body position- example, strict shoulder bending or snatching has been linked to shoulder messes. Shoulder discomfort is exceptionally normal and leads to general illness.[4, 5] It is confirmed that presentation physical working environmental stress like overhead working, hard work and repetitive work as well as working in incorrect positions increases the chance of shoulder pain and level of disability.

Mostly shoulder discomfort, the hidden cause is not known but the pathology seems to incorporate muscle discomfort and stiffness.[6] The recurrence and seriousness of side effects fluctuate generally and psychosocial elements, as well as physical elements are critical. Shoulder manifestation is a common issue in public, specifically in workers. Neck and shoulder pain were reported 23% in the workers in 2000 and 2001 in European Union.Many others factors also contributes such as economic costs, impaired work performance, considerable sickness absence, and early leaving or job loss[7,8] Risk factors for shoulder problems were conducted by many prospective analysis and data was collected by questionnaires and the results about shoulder discomfort many times shows by mannequin pictures to evaluate pain distribution.[9,10]

In orthopedic patients, shoulder pain is one of the leading ailments. The etiology, terminology and treatment of shoulder pain is still unknown inspite of high frequency of shoulder disorders. This is due to lack of knowledge and unknown pathology of shoulder pain. Physical labor as a foundation of shoulder pain is one of the great worries for many decades. Ischemia of chronic postural strain, or repeated minor trauma are the reasons for danger changes in critical zone of rotator cuff that results in degenerative changes, concluded by many researchers. Shoulder pathology is the most common reason for the musculoskeletal pain affecting about 20–30% of the general population.[11] A number of disorders can lead to shoulder dysfunction which results in reduced Range of Motion (ROM) of shoulder and disability.[12] Previous researches stated that there is an important relationship present among shoulder ROM and function. The shoulder is highly mobile joint and has to do more physical work to meet the demands of daily activities. To achieve this, it is not a simple 'ball and socket' joint but rather a complex one composed of four articulations and a supporting arrangement of bones, muscles and ligaments within and outside of the joint capsule.

Shoulder discomfort may have many reasons or pathologies. In addition to local pathologies, shoulder pain can be referred to neck and also to the whole arm and may be difficult to diagnose. Moreover, the abdominal viscera's may also refer pain to the shoulder joint such as diaphragm, liver or other viscera. The pathologies related to work and occupation will take into account in this study.[13]

## Methodology:

It was a cross sectional survey conducted through convenient sampling comprising 90 laborers working in Lahore City. Inclusion criteria was work related shoulder pain, male laborers, age range of 20-60 years laborers, with previous history of trauma or injury, fracture, dislocation or any systemic disorder were excluded. Data was collected by modified shoulder pain and disability index SPADI questionnaire. Data was analyzed by using SPSS version 20.0.

## Results:

Mean age of the laborers was 33.96 (±11.16 SD)years. 27.8% participants reported no pain while 69.8% reported mild pain and only 2.4% reported moderate pain. Frequency of pain was found to be in 13.33% participants (Table 1).The level of disability among laborers was evaluated by using disability index (SPADI) 43.3% reported no disability while 54.4% reported mild disability and 2.3% reported moderate disability. Mean total SPADI score was 7.9231±9.1384.

| | Frequency | Percent |
|---|---|---|
| No Shoulder Pain | 78 | 86.7 |
| Shoulder Pain | 12 | 13.3 |
| Total | 90 | 100.0 |

**Table 1:** Frequency of shoulder pain among laborers

## Discussion:

Occupation is a big resource of distressing the shoulder, and furthermore, practical focus of precautionary procedures. Work related hazards connected to shoulder sickness are

severe physical exertion, working in bad body position, multiple appointments and shaking. Shoulder discomfort is exceptionally normal and leads to general illness. It is confirmed that working in environmental stress like overhead working, hard work and repetitive work as well as working in incorrect positions increase the chance of shoulder pain and level of disability.[14-16] The association of shoulder pain with carrying weights on one shoulder and working with hands at or above shoulder level have been reported previously, with both showing multiple risk factors and relation between weight carried and time exposed respectively.[17] Whether these repetitive arm movements are a risk factor for shoulder pain or not have been still controversial and needs to be studied.[18] Another study was conducted and reported the six-month prevalence of shoulder pain at baseline among 598 subjects which was 45%, 37% for men and 49% for women. Prevalence increased with age, it was highest for the super market cashiers.

A study conducted on 326 subjects without SP atbase line, 76 (23%) reported incident shoulder pain. Hence the incidence rate was at least 8 per 100 person/year, since there were undoubtedly cases that both began and ended during that period. The incidence was 29% among men and 21% among women (not significantly different); it did not increase withage.[19]

Another study describes the results of 17 studies on prevalence, and one on both incidence and prevalence of shoulder pain in the general population. It was found 6.9 – 26% for the point prevalence, 18.6-31% for the 1-month prevalence, 4.7-46.7% for the 1-year prevalence and 6.7-66.7% for the lifetime prevalence of shoulder complaints.[20]

Present study was conducted to check the prevalence of shoulder pain and level of disability among laborers due to their work or their overhead repeated movements. The results are mostly in concordance with the previous studies as mentioned above.

## Conclusions:

Mostly mild to moderate pain was observed among the laborers

## Recommendations:

Laborers should be given proper relaxation time and the study should be expanded to large population of laborers to estimate the prevalence. In current study, population size was very small.

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