

Prevalence and Risk Factors of Musculoskeletal Pain Among Construction Workers in Al-Mukalla City

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INTRODUCTION & AIM

Musculoskeletal disorders are prevalent occupational health issues among construction workers. These disorders are a leading cause of reduced productivity, functional impairment, and lasting disability in this workforce.

This study aims to determine the prevalence and risk factors associated with musculoskeletal pain among construction workers in Al-Mukalla City.

METHOD

A cross-sectional study was conducted in Al-Mukalla City, Yemen from November 2022 to March 2023. A total of 378 construction workers, including general laborers, plumbers, electricians, bricklayers, tile setters, painters, carpenters, and blacksmiths, were interviewed using a structured questionnaire. Pain severity and interference were assessed using the Brief Pain Inventory (BPI) scores. The BPI scores were calculated as the mean of the severity and interference items. Respondents who had experienced pain in the past week rated their pain intensity at its worst, average, least, and current levels on a numerical scale ranging from 0 to 10.

RESULTS & DISCUSSION

The findings indicated that 150 (39.7%) construction workers reported musculoskeletal pain, with bricklayers and general laborers showing the highest prevalence at 37.33% and 24%, respectively

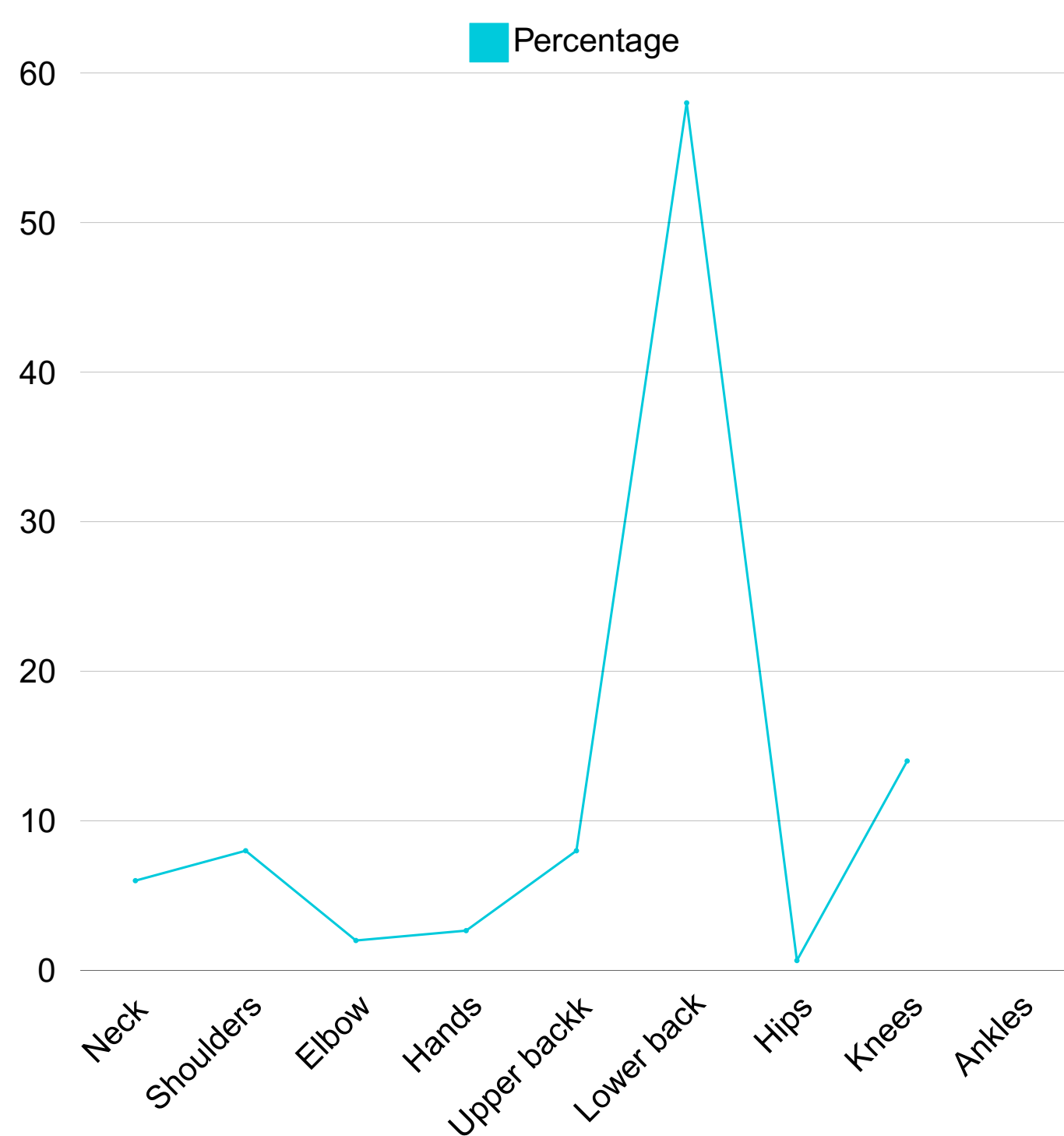


Figure 1: Percentage of pain sites among construction workers who reported pain

Among workers with musculoskeletal pain, 53.3% reported moderate pain severity, 44.67% reported mild pain, and 2% reported severe pain. Pain interference with daily activities was mostly mild (74%), with some experiencing moderate interference (22%) and a minority facing severe interference (4%).

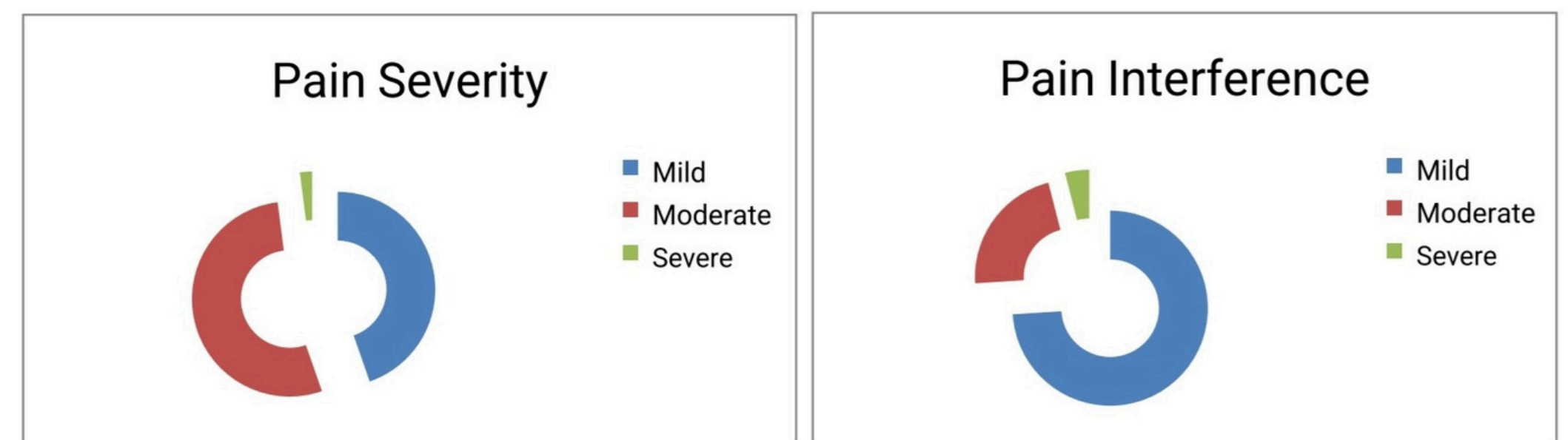


Figure 2: categories of pain severity and interference

There were significant associations between pain and the following factors: BMI ($P=0.041$), marital status ($P=0.011$), smoking ($P=0.032$), awkward posture ($P=0.032$), static position ($P=0.048$), and work satisfaction ($P=0.004$). No significant associations were found with educational level ($P=0.12$), type of work ($P=0.22$), or additional work ($P=0.66$). Participants with musculoskeletal pain were older ($P=0.01$) and had a longer duration of smoking ($P=0.012$) than those without pain. Additionally, age ($r=0.183$, $P=0.025$) was positively correlated with pain severity, indicating that greater age is associated with increased pain severity and interference.

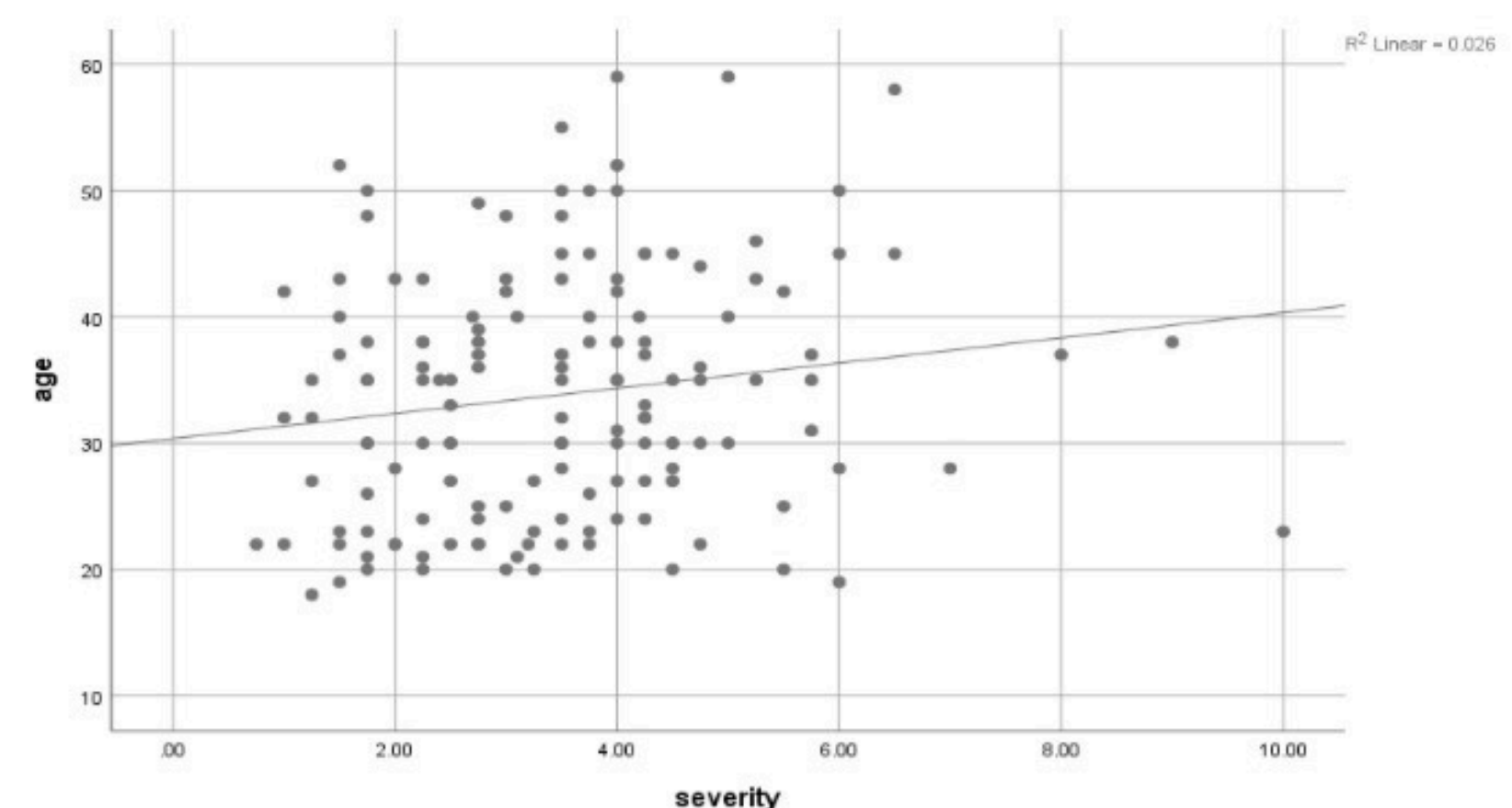


Figure 3: correlation between pain severity and age

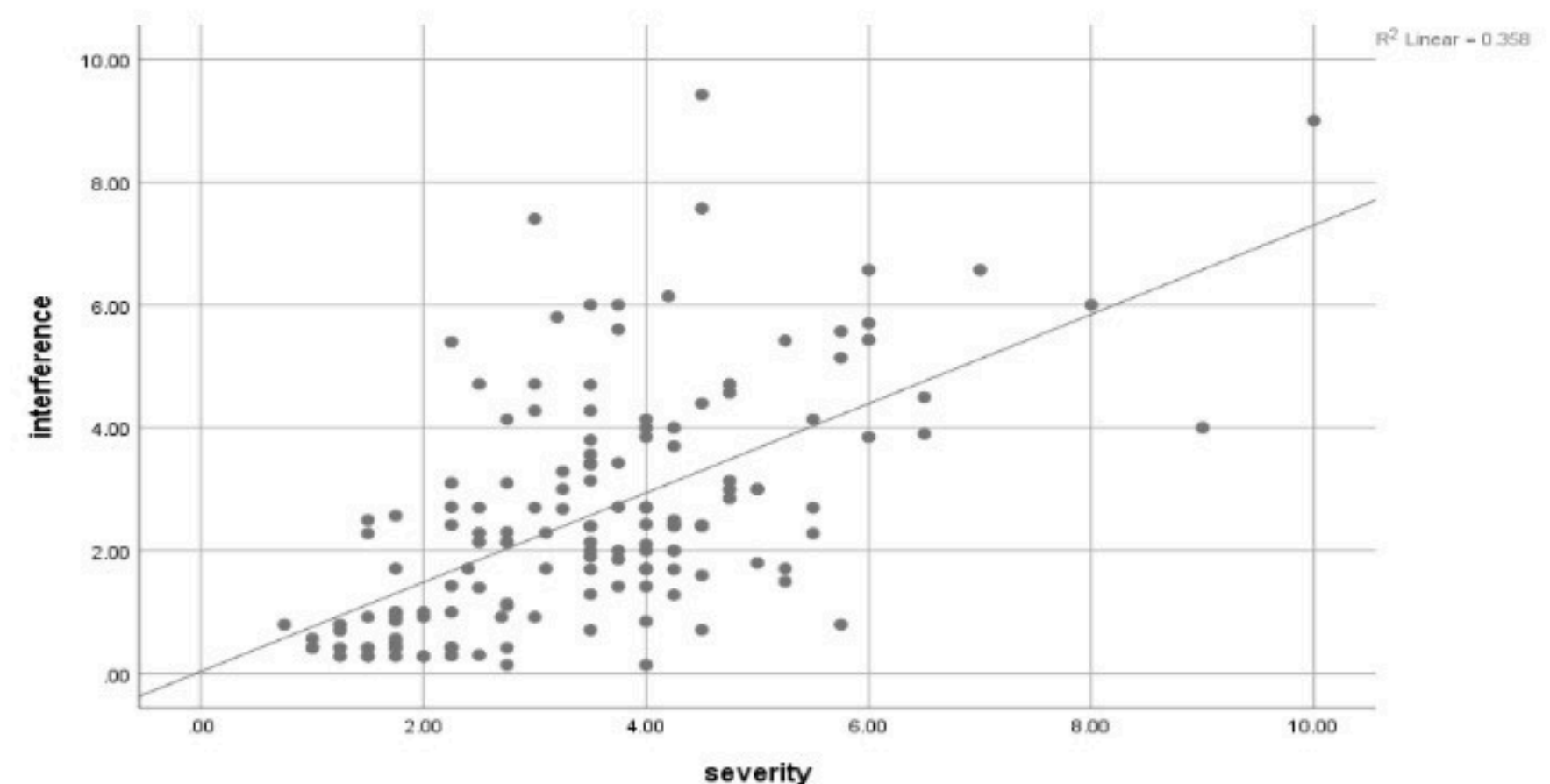


Figure 4: correlation between pain severity and pain interference

CONCLUSION

The study conducted in Al-Mukalla City highlights a high prevalence of musculoskeletal pain among construction workers, particularly affecting the lower back and knees. Overall, the pain severity was rated as moderate (mean= 3.51), with mild interference in most activities except for general activity and mood, where pain had a moderate interference (mean= 3.81 and mean= 3.56, respectively).