

Musculoskeletal Disorders in People Working as Saree Sellers

Keya Rupareliya

(Third-year BPT student), Megha Sheth (Lecturer), Aditi Deshmukh (Postgraduate student)

Abstract:

Background: People working as Saree Sellers need to adopt awkward postures, wrong sitting arrangements, and repetitive movements of the upper and lower limbs, which may predispose them to work-related musculoskeletal disorders (WRMSDs). MSDs are a major cause of morbidity, illness, and disability. The study aimed to find the prevalence of Musculoskeletal Disorders (MSDs) among Saree Sellers of Ahmedabad.

Methodology: Cross-sectional study was conducted on people selling sarees in shops for at least one year using convenience sampling. A self-administered questionnaire was generated to collect data, including close-ended questionnaires. A descriptive analysis was done.

Result: Total 56 workers completed the study-47(84%) males and 9(16%) females with mean age (39.1+11.2) years. 55(99%) workers worked for >8 hours a day, and 39(70%) worked seven days/a week. 34(61%) were working for >10 years. 30(54%) workers had pain in the last 12 months. 10(17%) had a problem with knees, and 4(7%) had problems with ankles as they had to get up > five times a day, as reported by 32(57%) workers. 35(62%) had received surgery, and 4 (7%) had undergone physiotherapy treatment.

Conclusion: MSDs among saree sellers were found to be about 50%, with discomfort present, particularly in the knee and ankle. Awareness about physiotherapy and ergonomics may be less in this industry. The working conditions need to be studied, and steps are taken to reduce the WRMSD's [Work Related Musculoskeletal Disorders] problems in this industry; ergonomic interventions can be suggested in the workplace.

Keywords: Prevalence, Ergonomics, Work-related musculoskeletal disorders.

Introduction

Musculoskeletal pain (MSP) is widely recognized as a major public health concern worldwide. It has been linked to a reduction in a person's ability to work and their quality of life. Common musculoskeletal problems include neck pain, limb discomfort, low back pain, joint pain, and chronic generalized pain.¹ Musculoskeletal disorders (MSDs) are injuries or disorders of the muscles, nerves, tendons, joints, cartilage, and disorders of the nerves, tendons, muscles and supporting structures of the upper and lower limbs, neck and lower back which are caused, precipitated or exacerbated by sudden exertion or prolonged exposure to physical factors such as repetition, force, vibration, or awkward posture.² Common symptoms include aching and stiffness, burning sensation in muscles, fatigue, muscle twitching, pain that worsens with movement, and sleep disturbances.

Work-related musculoskeletal disorders (WRMSDs) are described as a wide range of degenerative and inflammatory conditions that affect the supporting blood vessels, peripheral nerves, joints, ligaments, tendons, and muscles. Such conditions could result in functional impairment and pain widely experienced at the upper extremities and neck.³ People working as Saree Sellers need to adopt awkward postures and wrong sitting arrangements and repetitive movements of the limbs, which may predispose them to work-related musculoskeletal disorders (WRMSDs). MSDs are a major cause of morbidity, illness, and disability⁴. The study aimed to find the prevalence of Musculoskeletal Disorders (MSDs) among Saree Sellers of Ahmedabad.

Methodology

A cross-sectional study was conducted on people selling sarees in shops who were working in these shops for at least one year. Data was collected using convenience sampling. The participants were approached and explained about the study. Written informed consent to participate was obtained. A self-administered questionnaire was generated to collect data, including close-ended questionnaires. Descriptive analysis was done.

Results

Total 56 workers completed the study-47(84%) males and 9(16%) females. The mean age was (39.1+11.2) years.

55(99%) workers worked for >8 hours a day, 39(70%) worked 7 days/week as shown in figure 1. 34(61%) were working for >10 years. 30(54%) of workers had pain in last 12 months. 10(17%) had problem in knees and 4(7%) had problems in ankles. They had to get up for >5 times a day as reported by 32(57%) workers as shown in figure 2. Figure 3 shows the position of comfort to work in. Figure 4 shows whether the participant had any MSD in last 12 months. 35(62%) had received surgical treatment for pain and 4(7%) had taken physiotherapy treatment as shown in figure 5

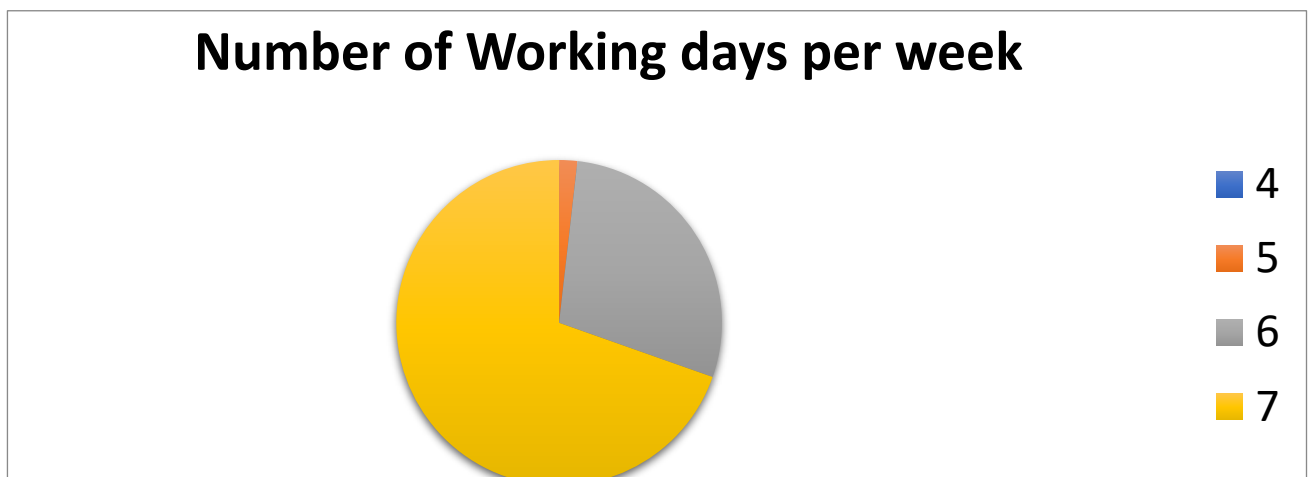


Figure 1: Number of working days per week

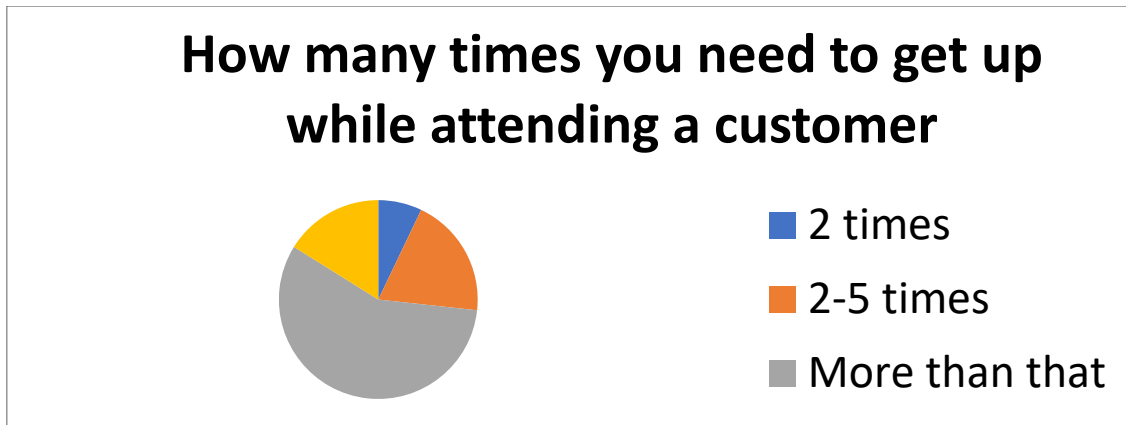


Figure 2: Number of times they had to get up and sit down in a day

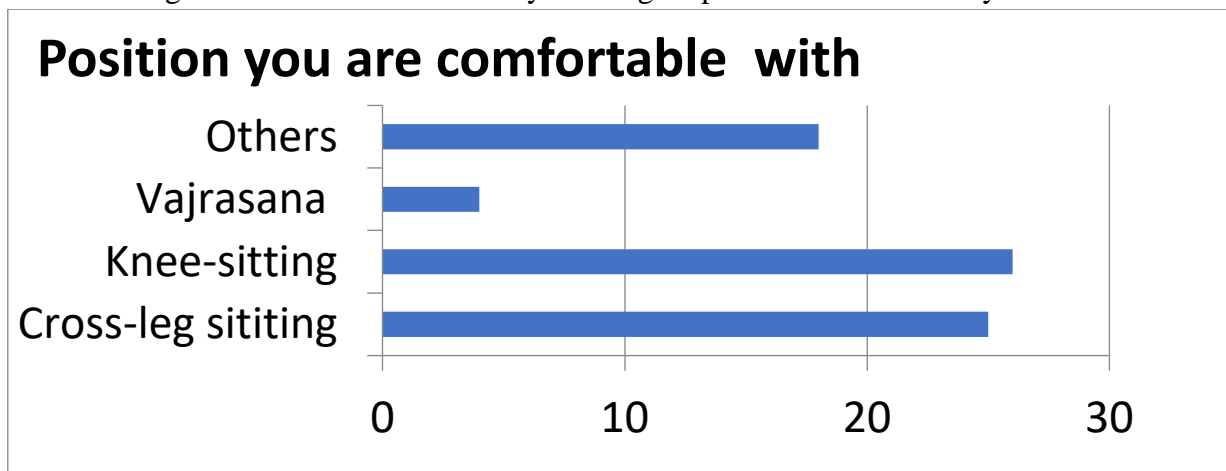


Figure 3: Position of comfort to work in

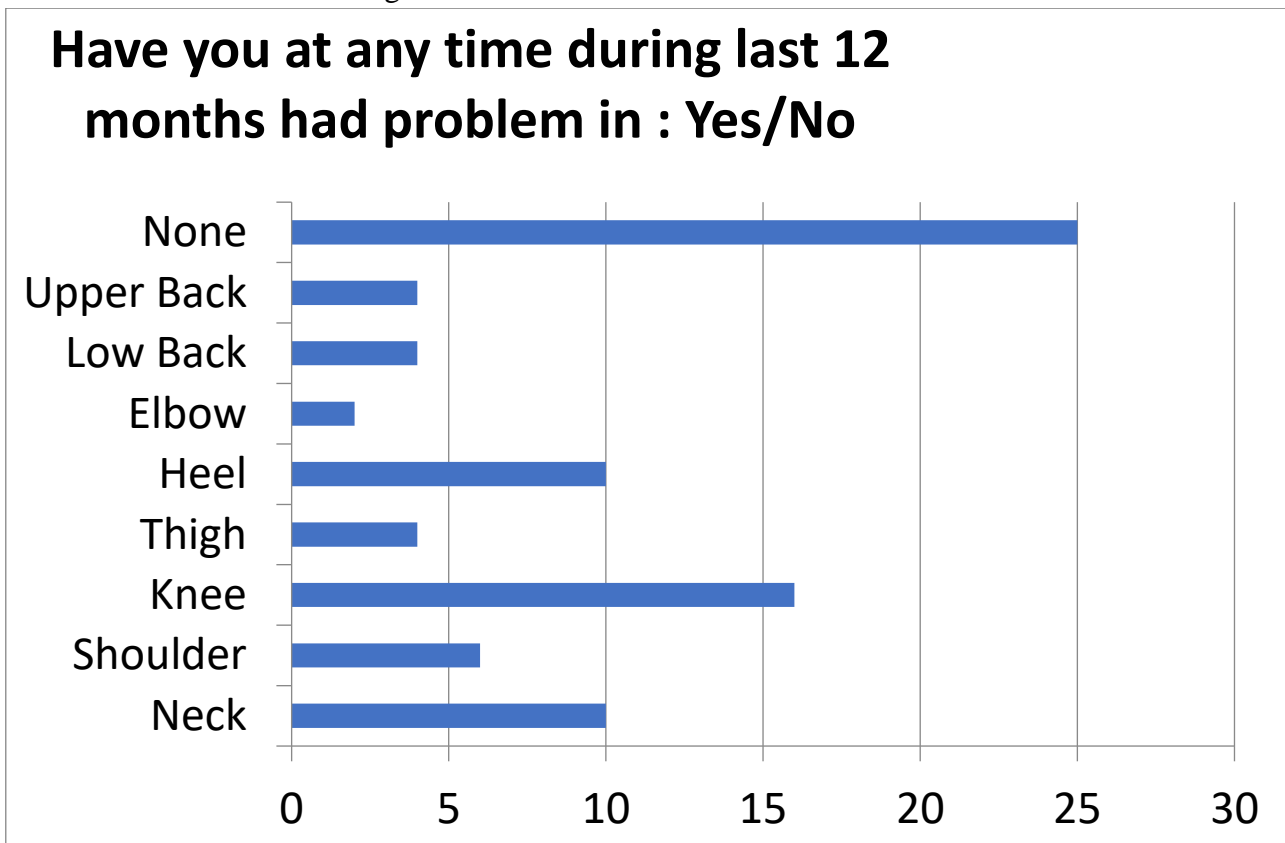


Figure 4: Whether the participant had any MSD in last 12 months

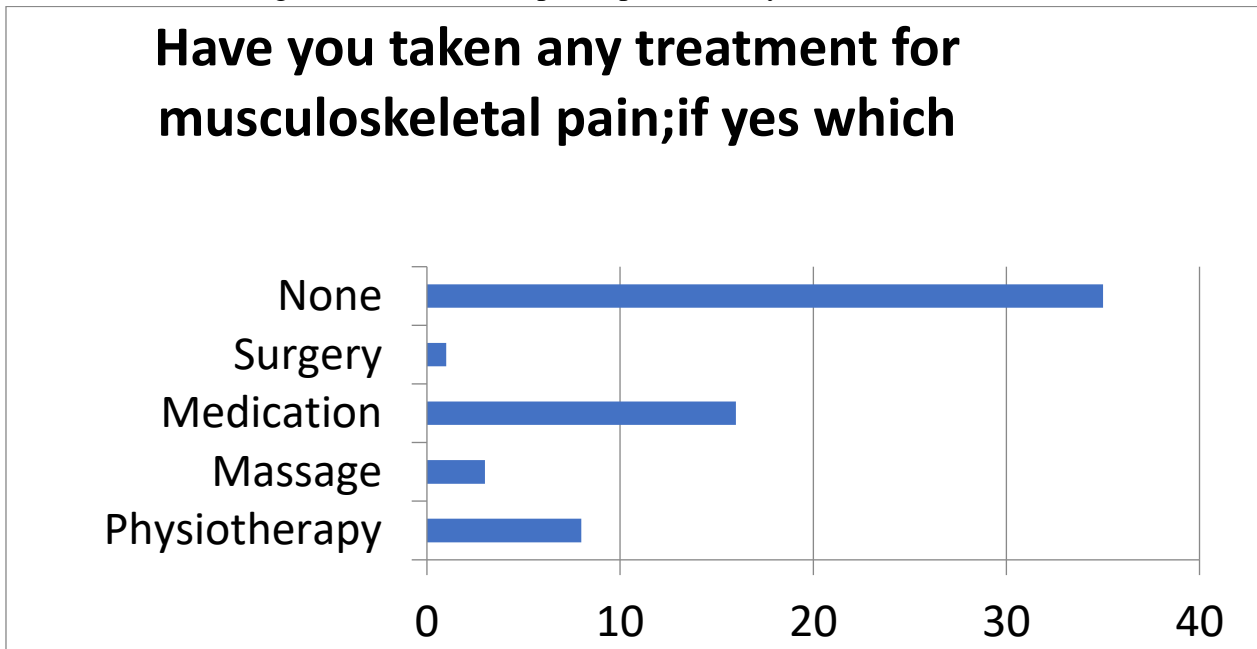


Figure 5: Whether taken any treatment for pain

Discussion:

In our study, 55 (99%) workers worked for >8 hours a day, 39 (70%) worked seven days/a week, 34 (61%) were working for >10 years.

This finding is similar to a study based on handloom weavers of Kerala, which indicates that MSD [Musculoskeletal Disorder] prevalence differs at different age groups and increases with the duration of work. Workers working in the dying sector have the highest risk of MSDs, followed by the weaving, winding, and finishing sector workers. The study also concluded that light, heat, noise, dust, and odor could affect workers’ health.⁵

From the study, about 30(54%) workers observed pain in the last 12 months. 10(17%) had a problem with knees, and 4 (7%) had problems with ankles. They had to get up >5 times a day, as reported by 32 (57%) workers, who may be a factor contributing to pain. Kneel sitting, and cross-legged sitting on the floor were the positions of comfort to work in. These health issues reported by the handloom workers are similar to issues reported by various other sectors, including the metal industry, construction work, mining industry, and spinning industry.⁶

Literature particular to the carpet weaving industry has also indicated a high prevalence of musculoskeletal symptoms due to various working factors like postures, loom type, working hours, poor lighting and ambient conditions, poor air quality, lack of work-rest regime and seat type, which can lead to loss of more than fifteen-thousand-man days and less productivity in subsequent years of employment.⁷

In our study, 35 (62%) had received surgical pain treatment, and 4 (7%) had taken physiotherapy treatment. In a study by Safaye in 2022, about 67.6% of patients were taking medications to manage the problem.⁸ Non-pharmacological treatments are frequently used as the first therapeutic option in addition to specific management for illnesses that cause regional discomfort.⁹

As per the US Health and Retirement Survey, 62% of people aged 51–61 had at least one musculoskeletal health condition. Characterizing high-risk populations in the community is required to establish assumptions or reasons for health variations and design prevention initiatives.¹⁰

An objective analysis of posture was not done in the present study.

Conclusion

The occurrence of MSDs among saree sellers was found to be about 50%, particularly in the knee, and ankle. Awareness about physiotherapy and ergonomics may be less in this industry. The working conditions need to be studied and steps taken to reduce the WRMSDs problems in this industry, ergonomic interventions can be suggested in the work places.

References

1. Jamil S, Mukul ME, Bari QI, Akhter A, Hasan M, Islam MM, Saha T, Hossain MJ. Prevalence and Factors Associated with Musculoskeletal Pain among Rural Handloom Weavers in Sirajganj, Bangladesh. *Bangladesh Pharmaceutical Journal*. 2022 Jul 30;25(2):188-98.
2. Hossain A. *Prevalence of Musculoskeletal Disorder among the Hand Loom Workers* (Doctoral dissertation, Bangladesh Health Professions Institute, Faculty of Medicine, the University of Dhaka, Bangladesh).
3. Korhan O, Memon AA. Introductory chapter: work-related musculoskeletal disorders. In *Work-related musculoskeletal disorders 2019* Mar 29. IntechOpen.
4. Satheeshkumar M, Krishnakumar K. WORK-RELATED musculoskeletal disorders among handloom workers IN Kerala, India. *International Journal of Advanced Research in Engineering and Technology*. 2020 Jul 22;11(6).
5. Satheeshkumar M, Krishnakumar K. WORK-RELATED musculoskeletal disorders among handloom workers IN Kerala, India. *Int J Adv Res Eng Technol*. 2020;11(6): 826–835. <https://doi.org/10.34218/IJARET.11.6.2020.074>.
6. Lagerstrom M, Wenemark M. *p Occupational and individual factors related to musculoskeletal symptoms in five body regions among Swedish nursing personnel*. 1995: 27–35. Published online.
7. Gamperiene M, Stigum H. *Work related risk factors for musculoskeletal complaints in the spinning industry in Lithuania*. 1999:411–416. Published online
8. Jamil S, Mukul ME, Bari QI, Akhter A, Hasan M, Islam MM, Saha T, Hossain MJ. Prevalence and Factors Associated with Musculoskeletal Pain among Rural Handloom Weavers in Sirajganj, Bangladesh. *Bangladesh Pharmaceutical Journal*. 2022 Jul 30;25(2):188-98.
9. Santos, M.L.C., da Silva Júnior, R.T., de Brito, B.B., da Silva, F.A.F., Marques, H.S., de Souza Gonçalves, V.L., Dos Santos, T.C., Cirne, C.L., e Silva, N.O., Oliveira, M.V. and de Melo, F.F., 2022. Non-pharmacological management of pediatric functional abdominal pain disorders: Current evidence and future perspectives. *World Journal of Clinical Pediatrics*, 11(2), p.105.
10. Yelin EH, Trupin LS, Sebesta DS. Transitions in employment, morbidity, and disability among persons ages 51–61 with musculoskeletal and non-musculoskeletal conditions in the US, 1992–1994. *Arthritis & Rheumatism: Official Journal of the American College of Rheumatology*. 1999 Apr;42(4):769-79