

ORIGINAL RESEARCH

Prevalence of chronic low back pain among daily wages workers

¹Dr Burhan Bhat, ²Dr Zameer Ali, ³Dr Jabreel Muzaffar, ⁴Dr A.R Badoo,
⁵Dr Sulaiman Sath, ⁶Dr Ishtiaq Abdullah, ⁷Dr Dawood Ahmad Khan

^{1,3,5}Senior Resident, ^{2,6}Assistant Professor, ⁴Professor and Head, ⁷Junior Resident

¹⁻⁷Department of Orthopaedics, GMC, Baramullah, India

Correspondence:

Dr Jabreel Muzaffar

Senior Resident, Department of Orthopaedics, GMC, Baramullah, India

ABSTRACT

Background: The present study was conducted for assessing prevalence of chronic low back pain among daily wages workers.

Materials & methods: A total of 200 daily wages workers were enrolled. Complete demographic details of all the patients were obtained. A questionnaire was prepared for assessing the prevalence of chronic low back pain. The Oswestry Disability Index (ODI) was assessed in all the patients with chronic low back pain. Patients with history of systemic illness or any known drug allergy were excluded. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software.

Results: Out of 200 daily wages worker, chronic low back pain was seen in 82.5 percent of the patients. Mean duration of symptoms was 7 to 9 months seen in 46 subjects while it was between 10 to 12 months in 44 subjects.

Conclusion: Daily wages workers are significantly affected by chronic low back pain.

Key words: Chronic low back pain, Workers

INTRODUCTION

Chronic low back pain is a common health problem in the workplace and most workers are expected to experience symptoms of low back pain during their working life. Low back pain has a profound impact both directly and indirectly on individual workers and their families, industries and governments.¹⁻³

Considerable research conducted on this topic in past 3 decades has identified a number of demographic, behavioral, health and work-related factors associated with low back pain. The 2 major categories of work-related risk factors for low back pain are physical and psychosocial. In the past, much of the research on work-related psychosocial risk factors was conducted within the job strain framework. In recent years, emphasis has shifted toward identifying some emerging psychosocial risk factors and work organizational characteristics associated with low back pain, including work-family conflict, hostile work environment, job insecurity, long work hours and mandatory overtime work hours.⁴⁻⁶ Hence; the present study was conducted for assessing prevalence of chronic low back pain among daily wages workers.

MATERIALS & METHODS

The present study was conducted for assessing prevalence of chronic low back pain among daily wages workers. A total of 200 daily wages workers were enrolled. Complete demographic details of all the patients were obtained. A questionnaire was prepared for assessing the prevalence of chronic low back pain. The Oswestry Disability Index (ODI) was assessed in all the patients with chronic low pain. Patients with history of systemic illness or any known drug allergy were excluded. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software.

RESULTS

Out of 200 daily wages worker, chronic low back pain was seen in 82.5 percent of the patients. Among these 165 subjects, 94 subjects were more than 40 years of age. Out of these 165 subjects, 126 subjects were males while the remaining were females. Mean ODI score was found to be 62.3. Mean duration of symptoms was 7 to 9 months seen in 46 subjects while it was between 10 to 12 months in 44 subjects.

Table 1: Prevalence of chronic low back pain

Chronic low back pain	Number of patients	Percentage
Present	165	82.5
Absent	35	17.5

Table 2: Demographic variable

Variable		Number of patients
Age group (years)	Less than 40	71
	More than 40	94
Gender	Males	126
	Females	39

Table 3: ODI score among subjects with chronic low back pain

ODI score	Value
Mean	62.3
SD	8.13

Table 4: Duration of symptoms

Duration of symptoms (months)	Number of patients
3 to 6 months	35
7 to 9 months	46
10 to 12 months	44
More than 12 months	40
Total	165

DISCUSSION

Low back pain, the most commonly reported musculoskeletal problem, is a major burden on individuals, health systems and social care systems with the indirect cost being predominant. It has become a major public health problem among the working population in recent years. This problem results in disability, poor services and sickness absences in working places. Musculoskeletal disorders (MSDs) are impairments of body structures such as muscles, joints, tendons, ligaments, nerves, bones and the localized blood circulation system. Moreover, back pain is defined as chronic or acute pain, aches or trouble in the lumbar or

buttock area sometimes called lumbago, or in the upper leg region which is a major work-related disorder in almost all physically demanding jobs.⁶⁻⁹ Hence; the present study was conducted for assessing prevalence of chronic low back pain among daily wages workers.

Out of 200 daily wages worker, chronic low back pain was seen in 82.5 percent of the patients. Among these 165 subjects, 94 subjects were more than 40 years of age. Out of these 165 subjects, 126 subjects were males while the remaining were females. Wami SD et al investigated the prevalence and identify determinants of low back pain among hotel industries' housekeepers. A systematic random sampling technique was applied to select 422 study participants, and the data was collected by a standardized Nordic questionnaire for the analysis of musculoskeletal symptoms. Bivariate and multivariable binary logistic regression analyses were performed using SPSS version 20. The significance level was obtained at 95% CI and p-value ≤ 0.05 . The prevalence of low back pain among hotel housekeepers in Gondar town was 58.1% (95% CI: 53.6, 62.8%). Being temporary employee (AOR: 3.22), type of job which requires reaching/overstretching (AOR: 2.93), engaging in a job that requires repetitive bending (AOR: 1.97), making > 30 beds per day (AOR: 3.19) signified the significant risk factors for low back pain. However, hotel housekeepers who were satisfied in their current job were less impacted by low back pain (AOR: 0.49). A high proportion of hotel housekeepers in this study reported they had low back pain.¹⁰

In the present study, Mean ODI score was found to be 62.3. Mean duration of symptoms was 7 to 9 months seen in 46 subjects while it was between 10 to 12 months in 44 subjects. Watanabe S et al conducted a questionnaire survey of shipyard workers to identify difficulties experienced due to orthopedic or musculoskeletal disorders. The mean age was 41.8 years (19–73 years). The lower and/or upper back was the most frequent site of pain (46.5%), followed by the shoulders (11.4%), knees (9.6%), and neck (5.3%). Maintaining a half-sitting posture was the most problematic activity of daily living. Back pain was less frequent in subjects who exercised regularly, and more common in those who worked with heavy loads or in narrow spaces. A multinomial logistic regression analysis showed that absence from work was more common in subjects with back pain who had gained weight since their youth, who smoked, who used fire while welding metal, or who worked in a lying posture. While 35.4% of subjects had experienced absence from work due to musculoskeletal pain, only 5.1% were permitted by their employer to alter their work content or reduce their workload. These results indicate that a large number of shipyard workers have difficulties in their work and daily life activities due to back pain.¹¹

CONCLUSION

Daily wages workers are significantly affected by chronic low back pain.

REFERENCES

1. Hoy D, Brooks P, Blyth F, Buchbinder R. The Epidemiology of low back pain. *J Manipulative Physiol Ther.* 2010 Dec;24(6):769–781.
2. Martin BI, Deyo RA, Mirza SK, et al. Expenditures and health status among adults with back and neck problems. *JAMA.* 2008 Feb;299(6):656–664.
3. Luo XM, Pietrobon R, Sun SX, Liu GG, Hey L. Estimates and patterns of direct health care expenditures among individuals with back pain in the United States. *Spine.* 2004 Jan 1;29(1):79–86.
4. Dionne CE, Dunn KM, Croft PR. Does back pain prevalence really decrease with increasing age? A systematic review. *Age Ageing.* 2006 May;35(3):229–234
5. Haldeman S, Kopansky-Giles D, Hurwitz EL, et al. Advancements in the Management of Spine Disorders. *J Manipulative Physiol Ther.* 2012 Apr;26(2):263–280.

6. Dagenais S, Caro J, Haldeman S. A systematic review of low back pain cost of illness studies in the United States and internationally. *Spine Journal*. 2008 Jan-Feb;8(1):8–20.
7. Work EAFSaHa . Factsheet 72 - work-related neck and upper limb disorders. 2018.
8. Abdol Rahman Mohd Nasrull, Muhamad Jaffar Mohd Syahir, Hassan Mohd Fahrul, Ngali Mohd Zamani, Pauline Ong. Exposure level of ergonomic risk factors in hotel industries. *IOP Conference Series: Materials Science and Engineering*. 2017;226:012018.
9. Mohammadi G. Prevalence of low back pain and associated risk factors among high school teachers in Kerman, Iran. *J Musculoskelet Res*. 2017;20(01):1750005.
10. Wami SD, Abere G, Dessie A, Getachew D. Work-related risk factors and the prevalence of low back pain among low wage workers: results from a cross-sectional study. *BMC Public Health*. 2019;19(1):1072.
11. Watanabe S, Takahashi T, Takeba J, Miura H. Factors associated with the prevalence of back pain and work absence in shipyard workers. *BMC Musculoskelet Disord*. 2018;19(1):12. Published 2018 Jan 11. doi:10.1186/s12891-018-1931-z