

Quality And The Severity Of Low Back Pain Of Patients At Government Hospital

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Abstract

Background: Low back pain or lumbago is a common musculoskeletal disorder affecting 80% of people at some point in their lives. It is an extremely common human phenomenon which occurs because of trauma, degeneration or any pathology related to back. It can be either acute, sub-acute or chronic in duration. The purpose of this research was to determine the frequency and severity of low back pain in patients attending OPD at a state Government hospital.

Methods: This is a descriptive study of 160 patients attending OPD. Study data were collected using a semi structured questionnaire form and visual analogue scale.

Results: The findings of the study showed that the majority of the patients were from the age group of 41 -60 years age group, the majority of the patients with Pre- obese BMI experienced moderate to severe Low back pain as compared to other BMI groups. The study also revealed that most of the severely affected patients were females as compared to males

Conclusion: Patients attending OPD at government hospitals experience low back pain and require special attention through various intervention programs like Physical exercise, back massage, hotfomentations and other nursing interventions to alleviate low back pain.

Keywords: Low back pain, Patients, Chronic, Determinants of low back pain.

INTRODUCTION

Back pain is one of the most common causes for patients to seek medical care in both primary care and emergency setting. An estimated 200 billion dollars are spent annually on the management of back pain. It is the most common reason for workman's compensation and lost work hours and productivity.¹ There is a broad range of potential etiologies for both adult and pediatric populations. The etiologies differ depending on the patient population, but most commonly, it is mechanical or non-specific. Not all back pain is lumbago or paraspinal muscle hyper tonicity. Sedentary lifestyles also can set the stage for low back pain, especially when a weekday routine of getting too little exercise is punctuated by strenuous weekend workout.²

Pain can begin abruptly as a result of an accident or by lifting something heavy, or it can develop over time due to age-related changes of the spine. Studies show that low back pain accounts for more sick leave & disability than any other medical condition.³ It accounts for more discomfort, lost work and productivity and also frustration. Low back pain can be caused by number of reasons that is due to excessive standing or sitting, exercises, lifting heavy objects, bad posture, etc.⁴ A nurse plays a vital role in this work, he or she is expected to carry out the instructions and aims to restore low back pain victim mentally and functionally.⁵ Nursing care is now provided to clients in a large

number of settings. These includes acute care, extended care, inpatient and outpatient care, sub-acute care, nursing home, home care, ambulatory care, operating room and office facilities⁶. In different practice areas, nursing care is carried out through different organizational structures for the nursing care of individuals with known and (or) predicted musculoskeletal alterations.⁷

Back pain is and likely will continue to be the focus of many providers because of the profound effect it has on patients' well-being. Function becomes impaired, activities of daily living are changed to accommodate back pain, and quality of life suffers. Unlike injuries to almost everywhere else in the body, back pain affects almost every aspect of life. For example, sleeping is disrupted, it is difficult to bend, reach or turn, it is hard to drive or go to work, lifting and exercise become strenuous, anxiety-provoking activity, walking to the bathroom becomes a difficult task, and so on. LBP is the most common cause of work-related disability, and it causes the highest number of years lived with disability.⁷

More than 80% of all health care costs can be attributed to chronic LBP. Nearly a third of people seeking treatment for low back pain will have persistent moderate pain for one year after an acute episode.⁸

Low back pain (LBP) is nearly a universal human experience, accounting for one-third of all daily outpatients visits, which is second from the common cold, an upper respiratory tract infection. The development of CLBP from acute episodes of LBP occurs only in a limited proportion of individuals, approximately 10 to 20%.⁹

Dureja GP, etal (2014) in their study of Prevalence of chronic pain and its impact on daily life and treatment practices in India in a total of 5004 respondents from eight cities showed that the overall point prevalence of chronic pain was 13%, and the mean intensity of pain on NRS scale was 6.93. Respondents with chronic moderate and chronic severe pain were 37% and 63%, respectively.¹⁰

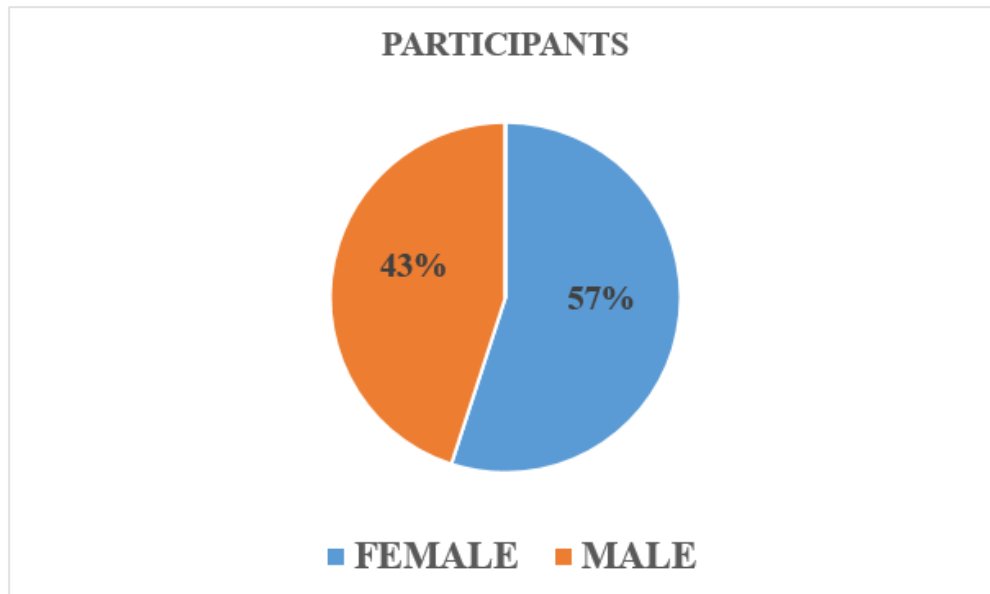
MATERIALS AND METHODS

A descriptive cross-sectional research design was used to conduct a study among the patients attending OPD in selected hospitals in Maharashtra, India. A total of 160 patients were selected by the non-probability purposive sampling technique, NPS (Numerical pain scale) was used to assess Low back pain, and a semi-structured questionnaire was used to assess the back pain symptoms. Ethical approval was taken from the Institutional Ethics Committee, and permission was taken from the state government hospital Mumbai, Maharashtra. Informed consent was taken from participants. Statistical Package for the Social Sciences (SPSS) 24.0 software was used for the analysis of data.

RESULTS AND FINDINGS OF THE STUDY:

The data were processed and analyzed based on the objective of the study. Among the 160 enrolled patients attending OPD in selected hospitals, the age-wise distribution showed that 43% belonged to the 41-60 age group, 27% belonged to 61 years and above, and 30% belonged to the 18-40 years of age group. 57% of the participants were female, and 43% participants were male. 8 % of the participants had underweight BMI, 58 % had normal BMI, 29 % were pre-obese BMI, 4% were class 1 BMI, 1% were class 2 BMI, and none were class 3 BMI. The majority, 43% of respondents were laborers, 26% were involved in clerical jobs, 19% were in private job, and 12% Government jobs [Table 1].

Based on the visual pain scale, **Table 2** shows that 57.81% (92) of participants had severe pain, and only 7.18% of participants had mild pain.

**Fig.1** Gender of participants**Table 1:** Distribution of patients as per demographic data n = 160

SR NO	DEMOGRAPHIC DATA	FREQUENCY	PERCENTAGE
AGE (YEARS)			
1	18-40 years	69	43
2	41-60 years	43	27
3	61 years and above	48	30
GENDER			
1	Male	69	43
2	Female	91	57
BMI			
1	Underweight < 18.5	13	8
2	Normal weight 18.5 – 24.5	93	58
3	Pre-obese > 25 -29.9	46	29
4	Obesity and above > 30	8	5
TYPE OF JOB			
1	Labour	69	43
2	Clerical	42	26
3	Private job	30	19
4	Government job	19	12

Table No.2: Distribution of participants as per quality of pain N=160

Sr. No	low back pain	Study participants	
		Frequency	Percentage (%)
1	Mild	11	7.18%
2	Moderate	57	35%
3	Severe	92	57.81%
Total		160	100

Figure no 2: Distribution of participants as per quality of pain

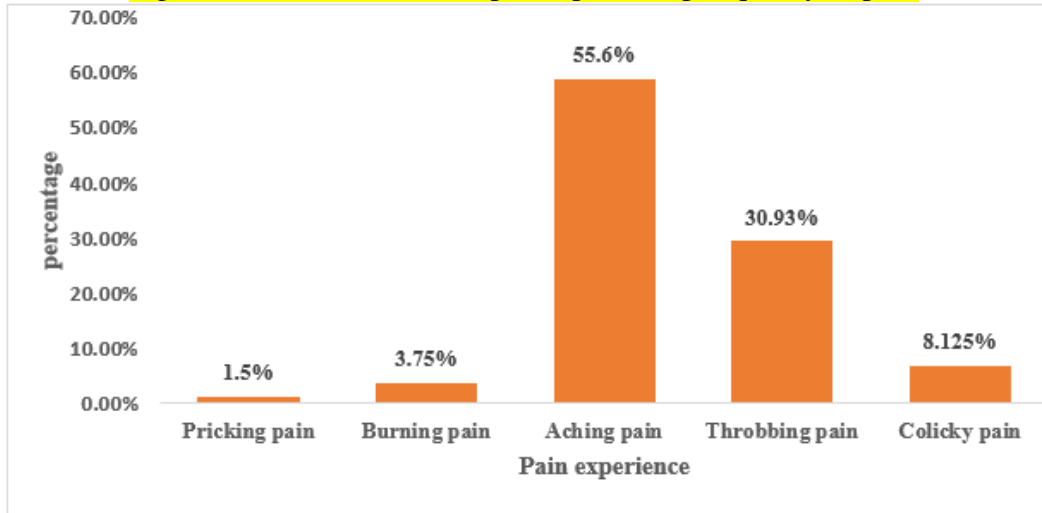


Figure no 3: Distribution of participants as per duration of pain

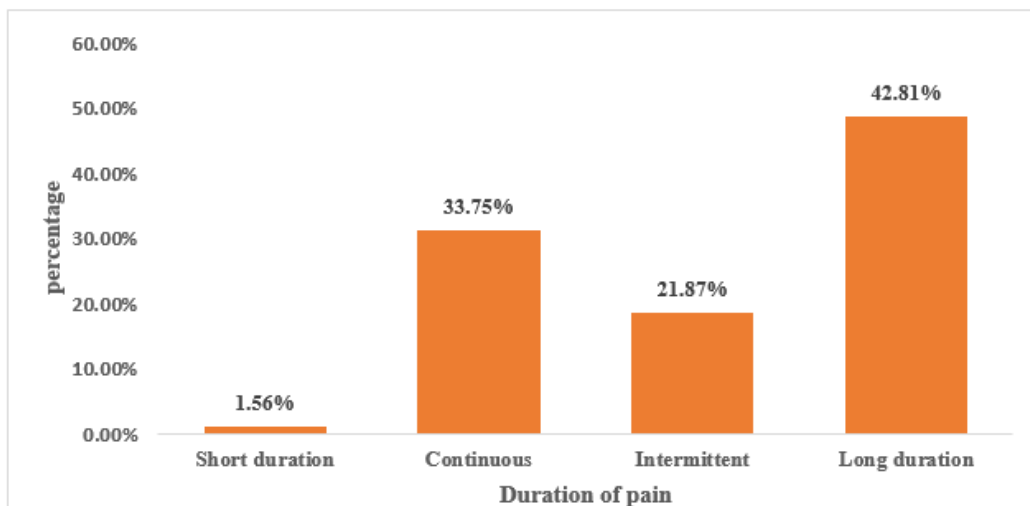
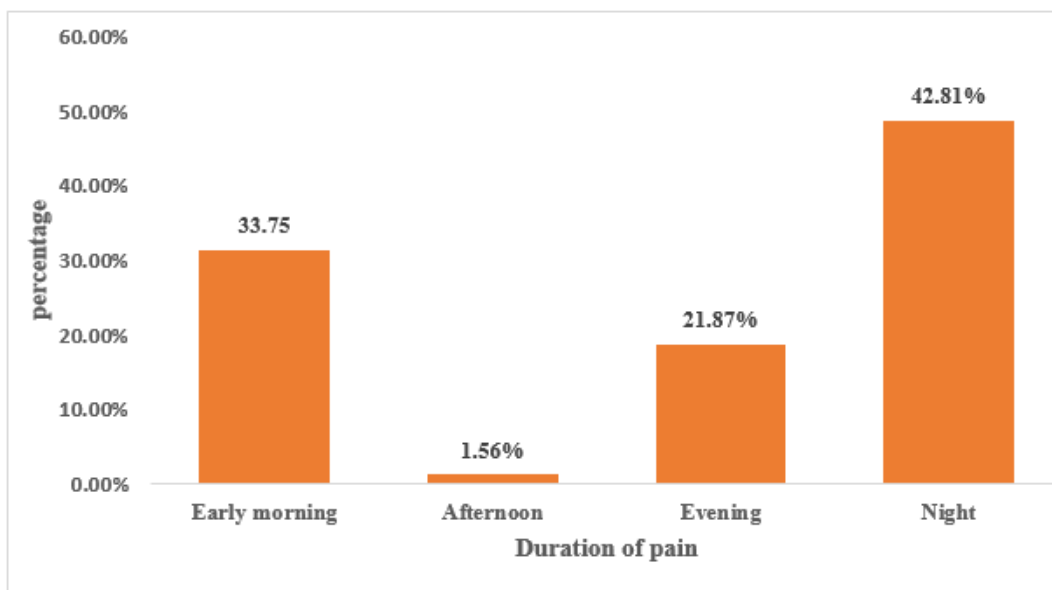


Figure no 4. Distribution of participants as per time of pain



DISCUSSION

In recent years, there have been an increased burden of musculoskeletal disease and back pain in both developed and developing nations^{11,12} The Global Burden of Disease Study 2016 confirmed LBP among the 5 leading causes of years lived with disability (YLDs)¹¹. The findings of this study revealed the different quality and severity of the pain experienced by the patients attending OPD at selected government hospitals of Mumbai.

The study result showed that, women(57%) having higher prevalence of LBP as compared to the males (43%), which is in agreement with the studies of Dancause KN and et al¹³. The explanation for female misery of LBP is not clear, although bio psychosocial mechanisms, including sex hormones, genetic factors, endogenous opioid function, and coping strategies to pain, contribute to the gender difference in pain^{14,15}. The higher risk of developing LBP in women may be associated with the higher incidence of spine diseases (e.g., vertebral micro fractures), to more frequent practice of activities that may trigger back pain (e.g., household chores), and perhaps to “complaining” being more socially acceptable for women than for men.¹⁶ The results also revealed that the majority of the patients were from the age group of 41 -60 years. Mattiuzzi C also described that most of the LBP cases peaks between 40–60 years of age¹⁷

The study also showed that the majority of the patients with Pre-obese BMI experienced moderate to severe Low back pain as compared to other BMI groups. Ezemagu, U.K, in their study, also reported that body mass index is a significant factor in low back pain.¹⁸ Increase in body mass index leading to obesity might serve as both a predictor and stimulator of low back pain.

Occupations involving heavy labor had greater prevalence of LBP; 43% of respondents in this study were laborers. This is in accordance with other studies wherein Lower back pain was top among other musculoskeletal disorders (58.18%) in Eastern Coalfields of India workers¹⁹. The results also revealed that a higher percentage (55.6%) of patients reported aching pain as the quality of pain they were experiencing at the time of study, the results are also seen in Leitlinie and their study. The results also showed that 42.81% of participants had low back pain for long duration as corroborated by Dionne CE, et al and their works. This study also revealed that they experienced pain mostly at night time (42.81%) as compared to other time of the day. Increased pain at night time can, in turn, further disrupt sleep, leading to a vicious cycle that can be further exacerbated by pain medication adversely affecting sleep^{22, 23}. Research has demonstrated that disrupted sleep will, in turn, exacerbate chronic back pain.²⁴ A lack of restorative sleep also hampers the body’s immune response and can affect cognitive function. Thus, a vicious cycle develops in which the back pain disrupts one's sleep, and difficulty sleeping makes the pain worse, which in turn makes sleeping more difficult, etc.

In line with this results it may be suggested that special attention through various intervention programs like Physical exercise, back massage, Hot fomentations and other nursing interventions to alleviate low back pain is necessary.

RECOMMENDATIONS

Based on the research findings the following recommendations can be made:

- A comparative study can be conducted on large samples in different settings.
- A study can be replicated to a large sample for generalization.
- A comparative study can be conducted to check the effectiveness of other nursing interventions like Back massage, Hot applications.
- The self-instructional module can be used in the hospitals and community to improve the awareness regarding complementary and alternative therapies for chronic low back pain

CONCLUSION

Among all chronic pain problems and spinal pain conditions, LBP is the most common public health, economic, and social problem. Moreover, LBP affects the population indiscriminately worldwide²⁵.

Chronic low back pain affects the daily activities of the various people attending the OPD. In line with the results it may be suggested that the patients should be provided with guidance and various other nursing interventions to lower the pain experienced by the patients attending OPD at selected hospitals.

Ethical consideration

The Institutional Ethics Committee of the National Institute of Medical Sciences, Jaipur, and Rajasthan, India, had reviewed the research project and approved undertaking the study protocol vide their letter no. NIMSUNI/IEC/2019/ Ph.D./108 dated 29th July 2019.

Conflicts of interest

There are no conflicts of interest.

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Nil.

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