# Original Research

# Pain characteristics and demographic profile of patients attending a pain clinic in Nepal

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**ABSTRACT:**
**Background:** Pain clinics have evolved to become specialized centers that provide comprehensive and interdisciplinary care for patients suffering from chronic pain. This study aims to explore the demographic profile and pain characteristics of patients attending a pain clinic, with the hope that this knowledge will contribute to better patient care. **Method:** A descriptive cross sectional study was conducted among all the new patients attending Nepal Pain Care and Research Centre which is a dedicated pain clinic for chronic pain in Kathmandu, Nepal from January 2022 to December 2023. **Result:** The study enrolled 413 patients, with the majority being female (61.02%). The age distribution showed that most patients were in the age groups of 40-59 years and 60-79 years. Lower limb pain was the most common complaint (32.45%), followed by back pain (21.55%) and neuropathic pain (21.07%). Conservative treatment was provided to 82.09% of patients, while 17.91% underwent interventional treatment. **Conclusion:** This study demonstrates that females are more prone to chronic pain and increasing age is more often associated with lower limb pain followed by back pain.
**Keywords:** Chronic pain, pain clinic, patient profile, back pain

## INTRODUCTION

Pain is described as an uncomfortable sensation in the body. Chronic pain is the pain that lasts for over three months and is frequently felt. According to a study by the World Health Organization, individuals who live with persistent pain are four times more likely than those without pain to suffer from depression or anxiety, and more than twice as likely to have difficulty working.[1]

The current concept of pain clinic is based on the thought of the founding father of interdisciplinary pain care, John J. Bonica (1917–1994). He was the one to propose a multidisciplinary method of pain management. He was the one who first established a multidisciplinary pain clinic in Seattle in 1947 to treat World War II veterans.[2] Pain clinics tend to see more complex chronic pain patients than primary care settings, but the types of patients seen may differ among practices.[3]

Eighty percent of physician visits are prompted by complaints of pain.[4] The chronic pain surveys conducted in different Asian countries like Japan, Thailand, Myanmar and India found the prevalence of chronic pain to be 17.5, 19.9%, 5.9% and 19.3% respectively. A study done in Nepal concluded that chronic pain is one of the major health problems in our communities and is causing far-reaching economic impact too.[5] The prevalence of chronic pain varies across different populations and countries, and understanding the characteristics of patients who seek care at pain clinics can provide valuable insights for improving patient care. Thus this study was conducted to explore the demographic and pain profile of patients and the treatment modalities with the hope that this knowledge will help us prepare, plan, and provide better patient care in the future.

## METHODS

This was a descriptive cross sectional study conducted at Nepal Pain Care and Research Centre which is dedicated pain clinic for chronic pain in Kathmandu, Nepal from January 2022 to December 2023. All the new patients attending the pain clinic who gave written consent were enrolled in the study. A self-

designed proforma was used to record demographic and clinical data. The collected data were recorded and analyzed in MS Excel.

**RESULTS**
Table 1 shows the age and sex distribution of the study population. A total of 413 patients were enrolled in

this study. Among them majority of the patients were female which comprised of 61.02% of the total study population. Majority of the patients were in the age group of 40-59 and 60-79 years constituting of 163(39.47%) and 133(32.20%) respectively. The mean age of the patients presenting to pain clinic was 53.29±16.2 years.

**Table 1: Age and Sex distribution of the patients**

| Age group | Male | Female | Total n(%) |
|---|---|---|---|
| 0-19 | 1 | 1 | 2(0.48%) |
| 20-39 | 46 | 48 | 94(22.76%) |
| 40-59 | 60 | 103 | 163(39.47%) |
| 60-79 | 48 | 90 | 133(32.20%) |
| 80-100 | 6 | 10 | 21(5.08%) |
| Grand Total | 161(38.98%) | 252(61.02%) | 413(100%) |

Table 2 shows the distribution of the patients according to the pain characterstics and the treatment received. Majority of the patients attended the pain clinic with the complain of lower limb pain that accounted for 134(32.45%) followed by back pain 89(21.55%) and neuropathic pain 87(21.07%).

Regarding the treatment, most of the patients (82.09%) were given conservative treatment while only 17.91% underwent intervention. The interventional treatment was mostly given to the patient with lower limb pain(6.54%) followed by neuropathic pain(5.57%).

**Table 2: Distribution of patients according to type of pain and its treatment modality**

| Pain type | Frequency | Percentage | Treatment | |
|---|---|---|---|---|
| | | | Conservative | Interventional |
| Head & Neck pain | 12 | 2.91% | 10 | 2 |
| Upper limb pain | 54 | 13.08% | 43 | 11 |
| Abdominal pain | 4 | 0.97% | 3 | 1 |
| Back pain | 89 | 21.55% | 81 | 8 |
| Lower limb pain | 134 | 32.45% | 107 | 27 |
| Neuropathic pain | 87 | 21.07% | 64 | 23 |
| Cancer pain | 9 | 2.18% | 8 | 1 |
| Others | 24 | 5.81% | 23 | 1 |
| Total | 413 | 100 | 339(82.09%) | 74(17.91%) |

**Table 3: Distribution of patients according to pain type in relation to sex**

| Pain type | Male | | Female | |
|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage |
| Head & Neck pain | 6 | 1.45 | 6 | 1.45 |
| Upper limb pain | 24 | 5.81 | 30 | 7.26 |
| Abdominal pain | 1 | 0.24 | 3 | 0.73 |
| Back pain | 38 | 9.20 | 51 | 12.35 |
| Lower limb pain | 37 | 8.96 | 97 | 23.49 |
| Neuropathic pain | 40 | 9.69 | 47 | 11.37 |
| Cancer pain | 6 | 1.45 | 3 | 0.73 |
| Others | 9 | 2.18 | 15 | 3.63 |
| Total | 161 | 100 | 252 | 100 |

**Table 4: Distribution of patients according to pain type in relation to age groups**

| Age Group | Head & Neck | Upper limb | Abdominal | Back | Lower limb | Neuropathic | Cancer | Others |
|---|---|---|---|---|---|---|---|---|
| 0-19 | | | | 2(0.48%) | | | | |
| 20-39 | 6(1.45%) | 9(2.18%) | 1(0.24%) | 28(6.78%) | 22(5.33%) | 18(4.36%) | 2(0.48%) | 8(1.94%) |
| 40-59 | 3 | 31 | | 36 | 46 | 35 | 3 | 9 |
| 60-80 | 3 | 11 | 3 | 21 | 60 | 29 | 4 | 7 |
| >80 | | 3 | | 2 | 6 | 5 | | |

| Pain type | Age groups | Frequency | Percentage |
|---|---|---|---|
| Head & Neck | 20-39 | 6 | 1.45% |
| | 40-59 | 3 | 0.73% |
| | 60-80 | 3 | 0.73% |
| Upper limb | 20-39 | 9 | 2.18% |
| | 40-59 | 31 | 7.51% |
| | 60-80 | 11 | 2.66% |
| | >80 | 3 | 0.73% |
| Abdominal | 20-39 | 1 | 0.24% |
| | 60-80 | 3 | 0.73% |
| Back | 0-19 | 2 | 0.48% |
| | 20-39 | 28 | 6.78% |
| | 40-59 | 36 | 8.72% |
| | 60-80 | 21 | 5.08% |
| | >80 | 2 | 0.48% |
| Lower limb | 20-39 | 22 | 5.33% |
| | 40-59 | 46 | 11.14% |
| | 60-80 | 60 | 14.53% |
| Neuropathic | 20-39 | 18 | 4.36% |
| | 40-59 | 35 | 8.47% |
| | 60-80 | 29 | 7.02% |
| | >80 | 5 | 1.21% |
| Cancer | 20-39 | 2 | 0.48% |
| | 40-59 | 3 | 0.73% |
| | 60-80 | 4 | 0.97% |
| | >80 | 6 | 1.45% |
| Others | 20-39 | 8 | 1.94% |
| | 40-59 | 9 | 2.18% |
| | 60-80 | 7 | 1.69% |
| Grand Total | | 413 | 100.00% |

## DISCUSSION

This study provides the information regarding the demographic and pain characteristic of 413 new patients visiting the pain clinic dedicated for chronic pain. In this study, majority of the total patients attending the pain clinic were females accounting for 61.02% (252) and most of the patients were in the age group of 40-59 and 60-79 years constituting of 163(39.47%) and 133(32.20%) respectively. This is in accordance with findings of the study done by Karthik A, Neetha T C, Maya G[6] and Lakha SF, Deshpande A, Assimakopoulus D, Mailis A[7] where the females were 66.3% and 62% of the total population respectively and maximum number of patients were in the age group 41-60 years(51.6%)[6] and 46-55 years(26%)[7] respectively. The mean age of the patients in this study was found to be 53.29±16.2 years whereas another study quoted the mean age to be 50.4 ± 16.03 years.[7]

This study revealed that major portions of the total patients attended the pain clinic with lower limb pain 32.45% followed by back pain 21.55% and neuropathic pain 21.07%. Lower limb pain was found to be the leading painful condition among the females (23.49%) whereas most males presented with neuropathic pain (9.69%) and back pain (9.20%). Osteoarthritis of knee was the most common cause of lower limb pain in both male and female. A study done by Hartvigsen et al revealed that chronic widespread pain was found in 11% of the entire cohort (15% of females in and 5% of males), and was twice as prevalent in patients younger than 65 years of age. Low back pain was present in 66% of the population.[8] Lower limb pain was the most prevalent manifestation in this study's age range of 40 to 80 years. Only 17.91% of patients underwent intervention in terms of treatment, with the majority of patients (82.09%) receiving conservative care. Patients with lower limb pain received interventional treatment the most (6.54%), followed by those with neuropathic pain (5.57%).

## CONCLUSION

This study demonstrates that females are more prone to chronic pain and increasing age is more often associated with lower limb pain followed by back pain. Lower limb pain was found to be the leading painful condition among the females whereas most males presented with neuropathic pain and back pain.

## LIMITATION

This study was conducted in a single pain clinic and may not truly represent the entire chronic pain patients in the country. A large scale multi centric study with comprehensive study of chronic pain is required to explore the depth of chronic pain cure.

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None

**CONFLICT OF INTEREST**
None

**REFERENCES**
1. Gureje O, Von Korff M, Simon GE, Gater R. Persistent Pain and Well-being: A World Health Organization Study in Primary Care. JAMA. 1998 Jul 8;280(2):147.
2. Das G, Ramasamy G. Evolution of Pain Clinic. J Recent Adv Pain. 2018 Apr;4(1):1–5.
3. Mailis-Gagnon A, Yegneswaran B, Lakha SF, Nicholson K, Steiman AJ, Ng D, et al. Pain characteristics and demographics of patients attending a university-affiliated pain clinic in Toronto, Ontario. Pain Res Manag. 2007;12(2):93–9.
4. Jensen MP, Moore MR, Bockow TB, Ehde DM, Engel JM. Psychosocial factors and adjustment to chronic pain in persons with physical disabilities: a systematic review. Arch Phys Med Rehabil. 2011 Jan;92(1):146–60.
5. Bhattarai B, Pokhrel PK, Tripathi M, Rahman TR, Baral DD, Pande R, et al. Chronic pain and cost: an epidemiological study in the communities of Sunsari district of Nepal. Nepal Med Coll J NMCJ. 2007 Mar;9(1):6–11.
6. Asish Karthik., Neetha T C and Maya G. Clinico Epidemiological Profile of Patients Attending the Pain Clinic of a Tertiary Care Teaching Hospital in South India-A Descriptive Study. International Journal of Current Advanced Research. 2018 June,07(6):13774-13778.
7. Lakha SF, Deshpande A, Assimakopoulos D, Mailis A. Demographics, Pain Characteristics and Diagnostic Classification Profile of Chronic Non-Cancer Pain Patients Attending a Canadian University-Affiliated Community Pain Clinic. Pain Ther. 2021 Dec;10(2):1413–26.
8. Hartvigsen J, Natvig B, Ferreira M. Is it all about a pain in the back? Best Pract Res Clin Rheumatol. 2013 Oct;27(5):613–23.