

Characteristics of Chronic Pain Patients Attending in Dedicated Pain Clinics at Eastern IndiaSukanta Sen¹, Anirban Saha², Rajib Sarkar³, Soumyajit Mondal⁴, Atanu Pramanik⁵, Mukul Bhattacharyya⁶, Santanu Kumar Tripathi⁷¹Professor and Head, Department of Pharmacology, ICARE Institute of Medical Sciences & Research, Balughata, Haldia 721645, West Bengal, India²Associate Professor, Department of Anaesthesiology, Jagannath Gupta Institute of Medical Sciences and Hospital, K.P. Mondal Road, Budge Budge, Kolkata 700137, West Bengal, India^{3,4}Assistant Professor, ⁵Post Graduate Trainee, Department of Orthopedics, ICARE Institute of Medical Sciences & Research, Balughata, Haldia 721645, West Bengal, India⁶Professor and Head, Department of Orthopedics, Institute of Post Graduate Medical Education & Research, Kolkata 700020, West Bengal, India⁷Principal and Professor, Department of Pharmacology, Jagannath Gupta Institute of Medical Sciences and Hospital, K.P. Mondal Road, Budge Budge, Kolkata 700137, West Bengal, India

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Conflict of interest: Nil

Abstract:**Objectives:** None of the study has addressed the demographic and clinical characteristics of chronic pain patients in the Eastern India. Study was done to determine the characteristics of patients presenting with chronic pain in Dedicated Pain Clinics at Eastern India.**Methodology:** Initial pain assessment scale and questionnaires was used as a screening interview for the selection of eligible participants. Brief pain inventory included a total of 9 questions and survey required approximately 8-10 minutes. This questionnaire assessed worst, least and average pain intensity of last 24 hrs and how pain has interfered basic functions of their life. Pain Detect Pain screening Questionnaire helped to identify neuropathic components in patients with chronic pain. An appropriate case report form (CRF) was designed to gather the baseline and end-of-intervention data. This CRF gathered information about prevalence of pain, frequency of pain during the past week, intensity of pain during the last episodes and at present (during OPD visit/ follow-up visit), sites of pain, radiation, and the main causes of pain.**Results:** The overall mean intensity of pain on NRS scale which was found to be lower [(4.92), NRS scale; 0 to 10] in group 1 as compared to group 2 (5.32) and group 3 (5.47) initially. There was a significant decrease in mean pain intensity ($p < 0.01$) in each group after 2 & 6 months of treatment follow-up from the baseline. Improvement of pain intensity on presentation was significantly higher in group 3 as compared to group 1 & 2 ($p < 0.01$).**Conclusion:** Future studies should aim to determine the prevalence of chronic pain, and those utilizing a larger sample size and conducted in pain clinics and health care centres are needed to develop better understanding of this important clinical condition.**Keywords:** Chronic Pain (CP), Cross-Sectional Studies, Pain Clinics, Comorbidity, Pain Scale, Demography.This is an Open Access article that uses a funding model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.**Introduction**

Pain is a universal human experience. It is the third most common reason why people visit their General Practitioner. Pain is defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. [1] Pain may result from several reasons such as an underlying disease, a chronic health condition, or sometimes due to unknown reasons. Chronic pain, often described as a long standing pain that persists past the normal time of healing or occurs along with a

chronic health condition, has multidimensional implications in aetiology, assessment, and treatment. [2] Chronic pain, defined as pain lasting for longer than three months (or six months in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition– Text Revision [DSM-IV-TR])¹, has emerged as one of the most significant concerns of the health care system. [2] It is estimated that 80% of physician visits are prompted by complaints of pain [3], and between

10% and 55% of Western societies suffer from chronic non-cancer pain (CNCP), [4,5]

A survey conducted by the World Health Organization (WHO) in 15 centers across Asia, Africa, Europe, and United States of America demonstrated the prevalence of chronic pain in 5% to 33% of the population. [3] Age and gender variations in chronic pain prevalence are remarkably consistent across countries and populations (i.e. women consistently report higher prevalence of chronic pain than men, and pain that interferes with life increases with age). [4] Apart from differences in gender, presence of degenerative diseases, few psychological factors, and genetic factors may influence the prevalence of chronic pain among patients. [5] The presence of multiple pains is also closely associated with pain severity, disability in daily living and associated features of the 'chronic pain syndrome', which explains why population prevalence figures for severe chronic pain are similar to those for severe chronic back or chronic widespread pain. [6]

Chronic pain is common, but there are currently no published robust Indian epidemiological data except for one recent point prevalence study of chronic pain which has shown the overall point prevalence of chronic pain in India was 13. [7] It is well known that chronic pain patients have significant suffering, associated with psychological and physical disabilities that result in loss of employment, financial burden, and impaired quality of life. [8]

Pain Clinic: A Pain Clinic is the place of convergence for all these patients irrespective of the aetiology of pain, medical, surgical, orthopaedic, traumatic oncological or whatever. It also called as pain management clinics. The concept of the Pain Clinic is based on the conviction that the effective management of difficult "pain" patient is possible only through the well-coordinated effort of a group of specialists contributing their knowledge and skills to the diagnosis and solution of these patients "problems". The only criterion is that he/she should complain of having pain. [9] All too often, specific forms of pain treatment, such as medications, injections or surgery, do little to relieve the chronic pain itself, or the long-term suffering and disability that can develop. Patients, their families and their doctors can become discouraged and frustrated.

Studies have demonstrated that patient demography and characteristics not only influence the outcomes of clinical treatments, but can also help the health care provider tailor specific treatments to different patient populations. [10] Under this circumstance study was done was in dedicated pain clinics vis-a-vis routine care facilities to know the characteristics of chronic pain patients in chronic

pain management in respect to treatment approaches, practices and outcomes, study was undertaken.

Methodology

The study was a prospective, comparative, observational outcomes research study. The study was conducted at two dedicated pain clinics - one government (ESI Institute of Pain Management, ESI Hospital Sealdah, Kolkata) and one private Pain Clinic in Kolkata; and one public routine health care facility (Department of Orthopedics, Medical College & Hospital, Kolkata). Structured questionnaire delivery, history taking and physical clinical examination was conducted at the Pain Clinics.

Inclusion Criteria

- Subjects with confirmed diagnosis of chronic pain - pain persisting for more than 3 months (i.e. two clinic visits separated by at least 3 months).
- Subjects receiving outpatient care at one of the participating facilities / pain clinics
- Subjects 18 years of age and older – both sexes
- Subjects willing to give written informed consent

Exclusion Criteria

- Subjects less than 18 years of age
- Subjects not agreeing to participate
- Pregnant
- Suffering from any serious disease such as unstable coronary heart disease, heart failure, advanced kidney or liver failure
- Any condition resulting in severe learning disability (e.g. brain injury) or
- Those unable to comprehend for other reasons will be excluded from the study.

Sample Size: Considering margin of error at 5% and a 95% confidence interval, with an estimated population size of 240, (approximately 240 chronic pain patients fitting all inclusion and exclusion criteria are expected to attend the pain clinics one day every week for one year) with 50% response distribution, the calculated recommended sample size comes to around 148 (using standard Raosoft software). Considering 20% dropout, estimated sample size was 118. However, for the purpose of logistic reasons and considering constraints in time, it was planned to restrict the total sample size to 120 i.e. 40 in each group.

Sample Design: For the purpose of the study and for logistic reasons, patients attending the pain clinics on any one day every week (Tuesday- ESI Pain Clinic, Wednesday- Orthopedic OPD, Medical College & Hospital, Kolkata and Friday- Privately Managed Pain Clinic) were considered for enrolment of study participants. Patients attending the pain clinic who fitted into the inclusion and exclu-

sion criteria were considered for participation. Those who qualified and were willing to participate and gave informed consent were considered for the study.

Parameters studied were as follows:

- Clinical presentation, history of chronic pain and other socio-demographic baseline data were assessed by using pre-structured questionnaire and validated pain scales.
- Distribution of different chronic pain types among all the chronic pain patients attending designated pain clinics and routine health care facilities were recorded as per treating physician's directive.
- Chronic pain related quality of life in health (patient's mental status and pain disability) was assessed at baseline, during follow-up visit and end of the study.

Study Tools

- Initial Pain Assessment Tool
- Brief Pain Inventory
- Pain Detect Pain Questionnaire
- Pain intensity measurement scale

Initial pain assessment scale and questionnaires was used as a screening interview for the selection of eligible participants. Brief pain inventory included a total of 9 questions and survey required approximately 8-10 minutes. This questionnaire assessed worst, least and average pain intensity of last 24 hrs and how pain has interfered basic functions of their life.

Pain Detect Pain screening Questionnaire helped to identify neuropathic components in patients with chronic pain. An appropriate case report form (CRF) was designed to gather the baseline and end-of-intervention data. This CRF gathered information about prevalence of pain, frequency of pain during the past week, intensity of pain during the

last episodes and at present (during OPD visit/ follow-up visit), sites of pain, radiation, and the main causes of pain.

Data analysis was done at the end of study. Descriptive statistics has been analyzed. Where possible, demographic and categorical data were analyzed with parametric or non-parametric tests whichever found applicable. Quantitative data are presented as mean \pm standard deviation, while qualitative data are demonstrated as frequency and percent. A P-value of less than 0.05 was considered statistically significant. All Statistical analysis for various outcome measures were performed using various statistical software packages like Statistical Package for the Social Sciences (Windows version 17.0; SPSS Inc, Chicago [IL], USA), Graphpad prism, Microsoft Excel and Medcalc version 5.

Results

A total of 143 patients suffering from chronic pain attending two dedicated pain clinics - one public (ESI Institute of Pain Management, Kolkata) and one private Pain Clinic in Kolkata; and one public routine health care facility (Department of Orthopedics & Physical Medicine & Rehabilitation, Medical College & Hospital, Kolkata), were initially recruited in the study after they fulfilled the study selection criteria and gave written informed consent. Out of these, 124 patients completed the study.

Final analysis was done for 120 chronic pain patients, including 40 patients in each center for uniformity in the analysis. Nineteen (19) study subjects in total were unavailable for follow-up, of which 9 patients belonged to group 2 (Medical College & Hospital, Kolkata), 3 patients belonged to group 3 (Private Pain Clinic, Kolkata) and 7 patients belonged to group 1 (ESI Institute of Pain Management, Kolkata) [Table 1].

Table 1: Baseline demographic profile in chronic pain patients in three groups

Characteristics	Group 1 [Public Pain Clinic] (n=40) [Mean \pm SD]	Group 2 [Public Routine Health Care Facility] (n=40) [Mean \pm SD]	Group 3 [Private Pain Clinic](n=40)[Mean \pm SD]
Mean Age (in years)	47.41 \pm 11.19	44.85 \pm 13.80	45.67 \pm 14.42
Mean Height (in cm)	164.8 \pm 6.55	164.17 \pm 5.38	169.2 \pm 4.80
Mean Weight (in kg)	61.6 \pm 9.32	54.64 \pm 6.80	65.87 \pm 13.05
Age Groups	Group 1 [N (%)]	Group 2[N (%)]	Group 3[N (%)]
19-39 years	9 (22.5)	13 (32.5)	17 (42.5)
40-59 years	27 (67.5)	18 (45)	15 (37.5)
>60 years	4 (10)	9 (22.5)	8 (20)
Sex			
Male	32 (80)	13 (32.5)	17 (42.5)
Female	8 (20)	27 (67.5)	23 (57.5)
Religion			
Hindu	29 (72.50)	30 (75)	31 (77.5)
Muslim	11 (27.50)	10 (25)	8 (20)
Others	0 (0)	0 (0)	1 (2.5)

Marital Status			
Unmarried	9 (22.5)	9 (22.5)	6 (15)
Married	30 (75)	26 (65)	29 (72.50)
Separated	1 (2.5)	1 (2.5)	2 (5)
Others	0 (0)	4(10)	3 (7.5)

Overall, a higher number of subjects were employed full-time or /part-time in group 1 (87.5%), mostly skilled worker as compared to group 2 (50%) and group 3 (45%). Professional and semi-professional category subjects or participants were more in group 3 (22.5%) and

group 2(17.5%) as compared to group 1 (12.5%). Overall, a higher number of subjects were of upper lower socioeconomic status in group 1 (52.5%), group 2(57.5%) as compared to group 3 (5%) (Table 2).

Table 2: Baseline demographic profile in chronic pain patients among three groups

Demographic Characteristics	Group 1 [n (%)]	Group 2 [n (%)]	Group 3 [n (%)]
Family Income (in INR)			
≤1589	0 (0)	2 (5)	0 (0)
1590-4726	6 (15)	6 (15)	0 (0)
4727-7877	11(27.5)	11(27.5)	0 (0)
7878-11,816	15(37.5)	8 (20)	1 (2.5)
11,817-15,753	6 (15)	9 (22.5)	10 (25)
15,754-31,506	2 (5)	4 (10)	16 (40)
≥31,507	0 (0)	0 (0)	13 (32.5)
Educational Status			
Professional or honours	0 (0)	0 (0)	3 (7.5)
Graduate or post graduate	3 (7.5)	8 (20)	12 (30)
Intermediate or post high school diploma	4 (10)	8 (20)	12 (30)
High school certificate	5 (12.5)	4 (10)	9 (22.5)
Middle school certificate	14 (35)	6 (15)	1 (2.5)
Primary school certificate	10 (25)	12 (30)	3 (7.5)
Illiterate	4 (10)	2 (5)	0 (0)
Occupation			
Unemployed	5 (12.5)	20 (50)	22 (55)
Unskilled worker	5 (12.5)	4 (10)	1 (2.5)
Semi-skilled worker	10 (25)	3 (7.5)	0 (0)
Skilled worker	15 (37.5)	3 (7.5)	0 (0)
Clerical, shop owner, farmer	0 (0)	0 (0)	8 (20)
Semi professional	2 (5)	6 (15)	4 (10)
Professional	3 (7.5)	1 (2.5)	5 (12.5)
Socioeconomic Scale			
Lower	0 (0)	1 (2.5)	0 (0)
Upper lower	21(52.5)	23 (57.5)	2 (5)
Lower middle	15(37.5)	7 (17.5)	12 (30)
Upper middle	4 (10)	8 (20)	22 (55)
Upper	0 (0)	1 (2.5)	4 (10)

Pain Related Characteristics

Causes of pain: Most of participants mentioned that low back pain [group 1 (50%), group 2 (42.5%) and group 3 (55%)], arthritis [group 1 (7.5%), group 2 (15%) and group 3 (5%)] and neuropathy [group 1 (10%), group 2 (2.5%) and group 3 (12.5%)] were the main causes of chronic pain among all categories (Table 3).

Table 3: Common Diagnosis in Different Groups of Chronic Pain Patients

Diagnosis	GROUP 1 (Pub. Pain Clin.) [n (%)]	GROUP 2 (Pub. Routine Healthcare Facility) [n (%)]	GROUP 3 (Priv. Pain Clin.) [n (%)]
Low Back Pain	20 (50)	17 (42.5)	22 (55)
Fibromyalgia	2 (5)	0 (0)	3 (7.5)
Plantar Fasciitis (Heel Pain)	2 (5)	3 (7.5)	2 (5)

Post Traumatic Adhesive Capsulitis (Frozen Shoulder)	3 (7.5)	4 (10)	1 (2.5)
Arthritis	3 (7.5)	6 (15)	2 (5)
Neuropathy	4 (10)	1 (2.5)	5 (12.5)
Facial pains	1(2.5)	0	1(2.5)
Spondylitis/ Spondylolisthesis	1 (2.5)	5 (12.5)	1 (2.5)
Ankle pain	2 (5)	3 (7.5)	1(2.5)
Others (CRPS, Phantom Limb Pain, Sacroiliatis Etc)	2 (5)	1 (2.5)	2 (5)

Associated medical conditions: As seen in Table, associated chronic diseases or/ disorders like diabetes, hypertension, thyroid problems etc were more common in group 3 (42.5%) and group 2

(32.5%) as compared to group 1 (27.5%). Diabetes as associated disease was more common in group 3 (25%) as compared to group 2 (12.5%) and group 1(10%) [Table 4].

Table 4: Associated Medical Conditions among Chronic Pain Patients

	Group 1 (Pub. Pain Clin.) [n(%)]	Group 2 (Pub. Routine Healthcare Facility) [n (%)]	Group 3 (Priv. Pain Clin.) [n (%)]
Yes	11 (27.5)	13 (32.5)	17 (42.5)
No	29 (72.5)	27 (67.5)	23 (57.5)

Table 5: Prevalence of associated medical conditions among chronic pain patients

Associated Medical Conditions	Group 1 (Pub. Pain Clin.) [n (%)]	Group 2 (Pub. Routine Healthcare Facility) [n (%)]	Group 3 (Priv. Pain Clin.) [n (%)]
Hypertension	2 (5)	3 (7.5)	4 (10)
Diabetes Mellitus	4 (10)	5 (12.5)	7 (12.5)
Hypothyroidism	2 (5)	1 (2.5)	1 (2.5)
Hyperthyroidism	1 (2.5)	0(0)	0(0)
Spina Bifida	0(0)	1 (2.5)	0(0)
Osteoporosis	1(2.5)	2 (5)	0(0)
Chronic Obstructive Pulmonary Disease	1(2.5)	0(0)	2 (5)
Obesity	0(0)	1 (2.5)	3 (7.5)

Nature of pain: Study groups were almost comparable in respect to nociceptive nature of pain (Table 5). But a neuropathic component of pain as identified by Pain Detect Pain Questionnaire was higher in group 1 (25%) as compared to group 2 (10%) and 3 (17.5%). Participants in group 3 suffered from chronic pain for more than 2.5 years on average. Overall, a higher duration was thus observed as compared to group 1 & 2. Disc problems were the most common reason for chronic pain, almost identical in all three groups. History of trauma or injuries was slightly higher in group 3 (37.5%) as compared to group 1 (35%) and

group 2 (27.5%). Work related reasons for initiation of chronic pain was more common in group 1 (40%) as compared to group 2 (27.5%) and group 3 (25%). Hind and lower limbs [group 1 (67.5%), group 2 (70%) and group 3 (65%)] and back and neck [group 1 (60%), group 2 (35%) and group 3 (52.5%)] were the most prevalent sites of pain among all participants across three centers.

Almost similar percentage of participants experienced radiating nature of pain [group 1 (47.5%), group 2 (47.5%) and group 3 (55%)] across three centers [Table 6/Fig. 1-3].

Table 6: Characteristics, distributions and patterns of different chronic pain conditions

Characteristics	Group 1 (Pub. Pain Clin.) [n (%)]	Group 2 (Pub. Routine Healthcare Facility) [n (%)]	Group 3 (Priv. Pain Clin.) [n (%)]
Types of Pain			
Nociceptive	25 (62.5)	26 (65)	23 (57.5)
Ambiguous	5 (12.5)	10 (25)	10 (32.5)
Neuropathic	10 (25)	4 (10)	7 (17.5)
Duration of Pain Suffering (in years)	1.82 ± 1.11	1.9 ± 1.84	2.58 ± 1.79
Common Reasons for Chronic Pain			
Nerve damage	4 (10)	2 (5)	3 (7.5)

Disc problems	17 (42.5)	15 (37.5)	19 (47.5)
Post-surgical	3 (7.5)	2 (5)	5 (12.5)
Traumatic injury	14 (35)	11 (27.5)	15 (37.5)
Others	9 (22.5)	12 (30)	7 (17.5)
Cause of Initiation of Pain			
Accident At Home	2 (5)	5 (12.5)	4 (10)
Accident At Work	8 (20)	3 (7.5)	6 (15)
Work Related	16 (40)	11 (27.5)	10 (25)
Motor Vehicle Accident	4 (10)	3 (7.5)	5 (12.5)
After Surgery	3 (7.5)	2 (5)	5 (12.5)
After an Illness	1 (2.5)	1 (2.5)	3 (7.5)
Just Began	0 (0)	3 (7.5)	2 (5)
Came on Gradually	5 (12.5)	9 (22.5)	4 (10)
Others	1 (2.5)	3 (7.5)	1 (2.5)
Pain Localization			
Hind and Lower Limbs	27 (67.5)	28 (70)	26 (65)
Upper Limbs	6 (15)	5 (12.5)	5 (12.5)
Chest	0 (0)	0 (0)	0 (0)
Back and Neck	24 (60)	14 (35)	21 (52.5)
Abdomen	0 (0)	0 (0)	0 (0)
Head and Face	0 (0)	0 (0)	0 (0)
Widespread Pain	2 (5)	1 (2.5)	3 (7.5)
Pain Radiation to other Body Parts			
Yes	19 (47.5)	19 (47.5)	22 (55)
No	21 (52.5)	21 (52.5)	18 (45)

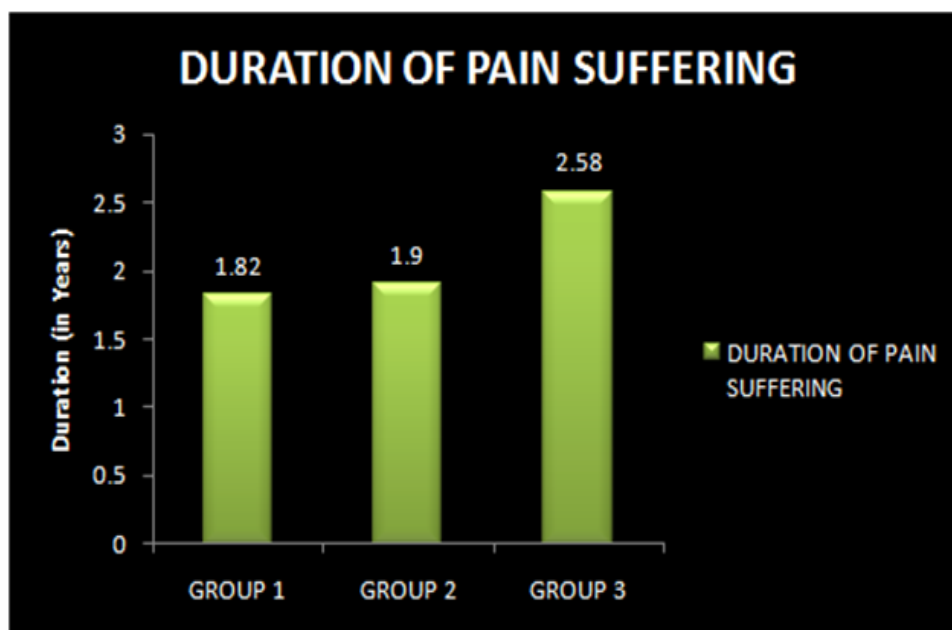


Figure 1: Duration of pain suffering among chronic pain patients

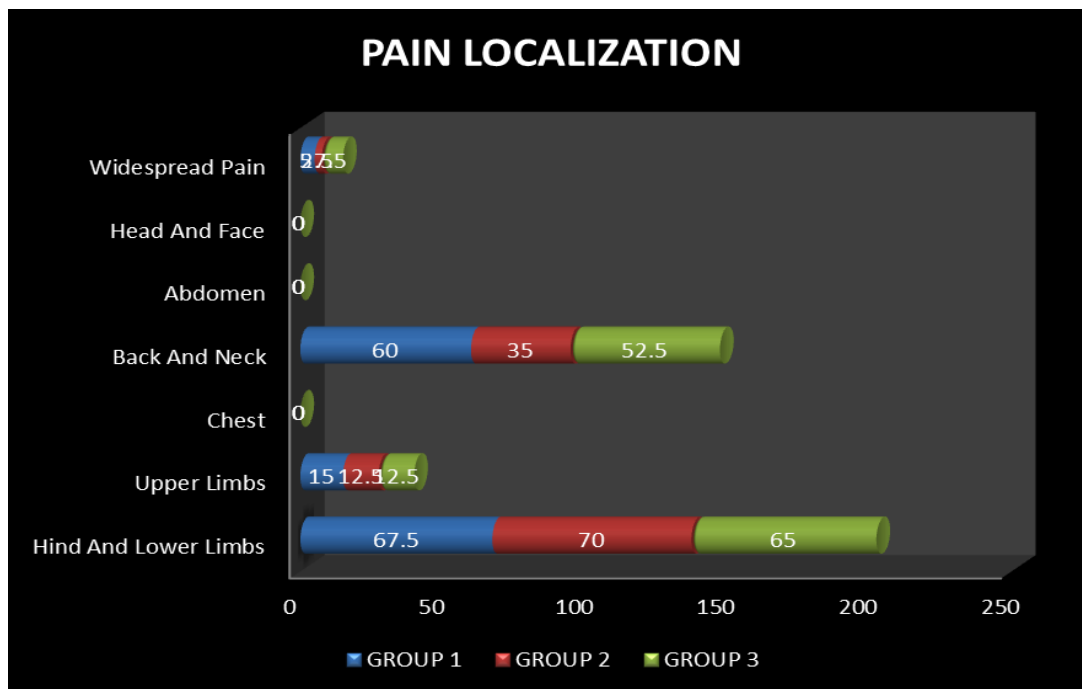


Figure 2: Pain localization among chronic pain patients

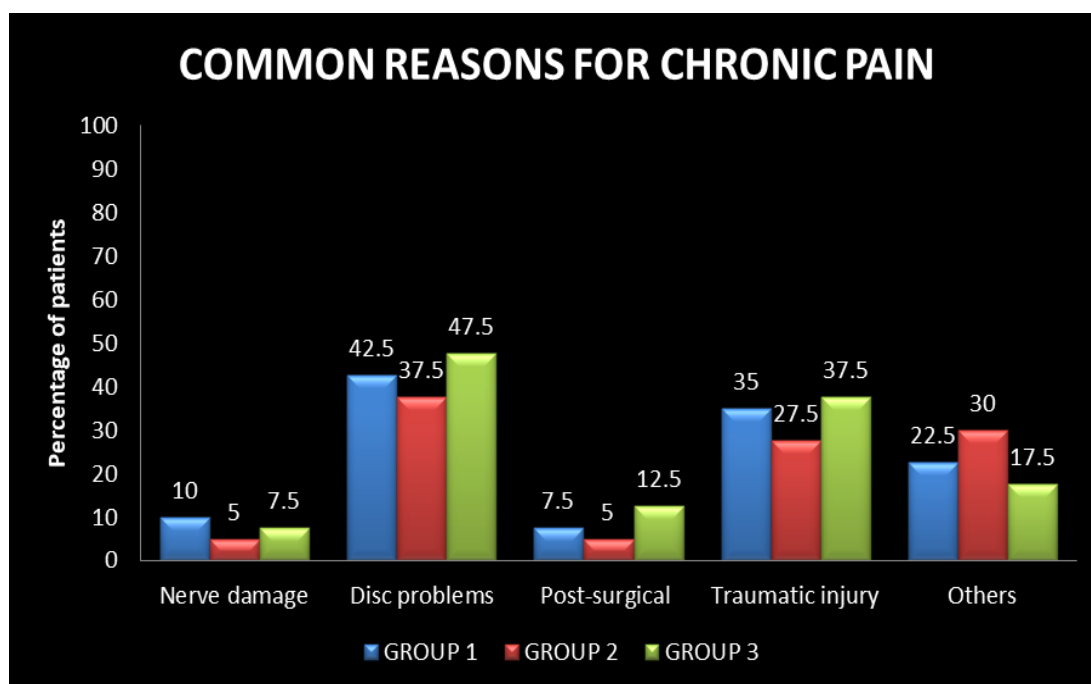


Figure 3: Common reasons for chronic pain among study participants

Intensity of Pain: The overall mean intensity of pain on presentation was assessed with the help of NRS scale which was found to be lower [(4.92), NRS scale; 0 to 10] in group 1 as compared to group 2 (5.32) and group 3 (5.47) initially. There was a significant decrease in mean pain intensity

($p < 0.01$) in each group after 2 & 6 months of treatment follow-up from the baseline.

Improvement of pain intensity on presentation was significantly higher in group 3 as compared to group 1 & 2 ($p < 0.01$) [Table 7].

Table 7: Pain intensity on presentation (NRS Scale)

	Day 0	2 months	4 months	6 months
Group 1	4.925 ± 0.16	4.275 ± 0.15 [#]	3.65 ± 0.12 [*]	2.9 ± 0.11 [#]
Group 2	5.325 ± 0.13	4.72 ± 0.13 [#]	4.25 ± 0.13 [#]	3.77 ± 0.13 [#]
Group 3	5.475 ± 0.85	4.03 ± 0.68 [#]	3.21 ± 0.64 [#]	2.45 ± 0.77 [#]

Note: [#] denotes p<0.01, ^{*} denotes p< 0.05, ANOVA Followed by Tukey's HSD Test

Post hoc Tukey's HSD test revealed that decrease in pain intensity on presentation over the time period was very statistically significant (p<0.0001, p<0.001, p<0.05) for group 2 and 3 when compared to group 1 (Table 7/Fig. 4).

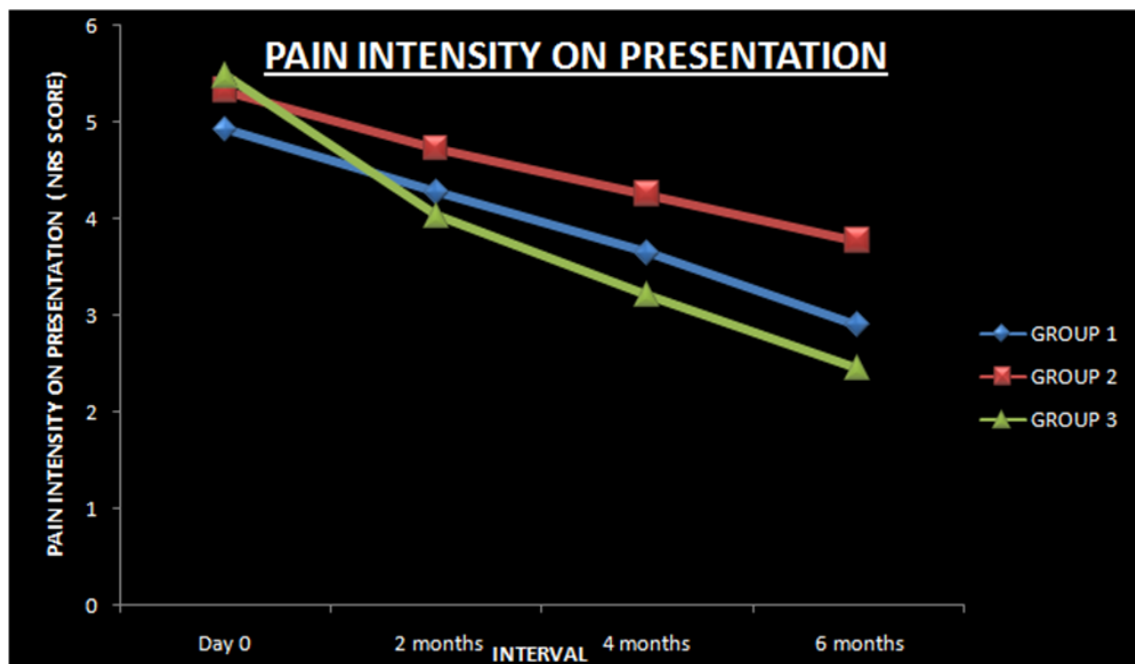


Figure 4: Pain Intensity (NRS Scale) on different time interval in three groups

Discussion

The study groups were comparable in respect to age, height, weight, religion, sex and marital status. Higher income family group was quite higher in group 3 (40%) as compared to group 2 (10%) and group 1 (5%). That is important in terms of affordability of chronic pain treatment in private set-up.

Low back pain [group 1 (50%), group 2 (42.5%) and group 3 (55%)], arthritis [group 1 (7.5%), group 2 (15%) and group 3 (5%)] and neuropathy [group 1 (10%), group 2 (2.5%) and group 3 (12.5%)] were among the main causes of chronic pain among all categories.

Participants in group 3 suffered from chronic pain for more than 2.5 years on average. Studies have shown that low back pain is a leading cause of disability. The global point prevalence of LBP was 9.4% (95% CI 9.0 to 9.8). It occurs in similar proportions in all cultures, interferes with quality of life and work performance, and is the most common reason for medical consultations. Few cases of back pain are due to specific causes; most cases are non-specific. Acute back pain is the most

common presentation and is usually self-limiting, lasting less than three months regardless of treatment. Chronic back pain is a more difficult problem, which often has strong psychological overlay: work dissatisfaction, boredom, and a generous compensation system contribute to it. [11]

Disc problems were the most common reason for chronic pain, almost identical in all three groups. History of trauma or injuries was slightly higher in group 3 (37.5%) as compared to group 1 (35%) and group 2 (27.5%). Work related reasons for initiation of chronic pain was more common in group 1 (40%) as compared to group 2 (27.5%) and group 3 (25%). Hind and lower limbs [group 1 (67.5%), group 2 (70%) and group 3 (65%)] and back and neck [group 1 (60%), group 2 (35%) and group 3 (52.5%)] were the most prevalent sites of pain among all participants across three centres. Almost similar percentage of participants experienced radiating nature of pain [group 1 (47.5%), group 2 (47.5%) and group 3 (55%)] across three centres. Co-morbidities were present in 27.5%, 32.5% and 42.5% patients in groups 1, 2, and 3 respectively. Diabetes was the most common

associated disease, followed by hypertension, hypo- or hyperthyroidism.

Al-Zadjali N et al (2017) study revealed that out of 6609 patients, 241 (3.6%) was found to have chronic pain. The mean age of patients with chronic pain was 54.0±13.0 years. The majority of patients were female (n = 174; 72.1%), and most were Omani (n = 201; 83.4%). The prevalence of chronic pain was found to be significantly higher among females compared to males (4.5% vs. 2.5%; p < 0.001) and also among Omani nationals to non-nationals (83.4% vs. 70.1%; p < 0.001). Chronic pain was significantly associated with the following comorbidities; diabetes (33.1% vs. 20.7%; p < 0.001), obesity (35.2% vs. 26.5%; p = 0.001), and hypertension (51.0% vs. 38.5%; p = 0.002). Osteoarthritis was the most common pain condition (n = 104; 43.1%). Obesity is hypothesized to lead to pain because of excessive mechanical stresses and its proinflammatory state. It is also recognized that chronic pain may lead to decreased physical activity due to fear of exacerbating pain and this often results in weight gain. Genetic, psychological and metabolic factors may also lead to both obesity and pain. [13] Saxena AK et al study (2018) [14] revealed that a total of 4326 Indian patients were screened, and 836 completed a detailed pain questionnaire during 2006. The prevalence of CP was found to be 19.3% (n = 836). There was a higher prevalence in females (25.2%). Pain prevalence increased steeply beyond the age of 65 years old. There was a significant impact of CP on work and daily function.

About 47% of individuals aged 45 years and above reported joint pain, 31% reported back pain and 20% suffered from ankle or foot pain. The prevalence of pain at all the anatomical sites increased with age and was reported higher among females. Relative to respondents aged 45–59 years, those aged 75 years and older exhibited a 41% higher likelihood of experiencing back pain. [15] In light of our research findings, we strongly recommend that health professionals and policymakers carefully consider a comprehensive set of interventions to alleviate the burden of pain among older adults.

Conclusion

This prevalence study may serve as a benchmark of CP needs of the society and may help to initiate governmental efforts to mitigate the CP epidemic in India. This research highlights the high burden of pain in major anatomical sites among middle-aged and older adults in India and emphasises the need for increased awareness and effective pain management strategies. Future studies should aim to determine the prevalence of chronic pain, and those utilizing a larger sample size and conducted in community-based primary health care centers are

needed to develop better understanding of this important clinical condition.

Ethical Clearance: Ethics approval has been taken from the IEC-CSTM, Kolkata.

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