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## Prevalence Studies of Chronic Pain Using (MDHAQ) in Narsinhpur a Developed Village in India

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**Keywords:** Rural, chronic pain, multidimensional health assessment questionnaire

### ABSTRACT

The study was performed using multidimensional health assessment questionnaire to quantify the prevalence of pain among the rural patients and to describe the potential determinants of pain in rural population. The study describes the prevalence of pain among rural area and analyzes its determinants, as chronic pain is a major problem in the rural community and a detailed understanding of the epidemiology of chronic pain is essential for efficient management of chronic pain in primary care.



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## INTRODUCTION:

Pain is a common symptom and affects a large number of patients with many types of disease, both within the community and in a variety of clinical settings. [1] Chronic pain in elderly people has begun to receive serious scientific consideration. Studies of the prevalence of pain within samples of elderly people have produced more consistent results. Self-reported measures play a central role in the assessment of chronic pain. [2] A multidimensional health assessment questionnaire (MDHAQ) is useful in the standard care of patients with all rheumatic diseases in a busy clinical setting. [3] Study shows that the Indian HAQ is a reliable, sensitive and valid instrument for measuring functional disability. It can be self-administered and was found to be eminently suitable for Indian population both at home and abroad. [4]

The aims of this study were to quantify the prevalence of pain among the rural Indian patients and to describe the potential determinants of pain in this population. Narsinhpur has a population of 4300 [ 2320 males & 1980 females] and qualifies itself to be called as a developing village because it contains all the necessities like schools, professional colleges, clinics, transport facilities, banks, etc. The evaluation of pain using the multidimensional health assessment questionnaire was designed to answer two study questions: (a) What are the prevalence and types of pain complaints in rural areas and (b) What is the percentage of home patients with pain that can be assessed using several available pain-intensity scales and an HAQ. The Indian HAQ comprised of 12 questions (nine basic and three-advanced ADL, on the standard HAQ format) relevant to the Indian population. The total score divided by 12 gave the Disability Index. An interviewer assisted verbal Marathi translation was also done, for the use of non-English speaking patients. The study was designed by surveying the house residents of Narsinhpur village. The patients suffering from chronic pain for more than six months evidenced from medical history and aged in the range of 35-100 years were found to be eligible for pain assessment as the cognitive impairment among elderly presents a substantial barrier to pain assessment and management.

The questionnaire was self-administered with minimal instruction and took, on average, about 15 -20 min to complete. Pain Intensity was recorded by Pain Scales viz. Present Pain Intensity McGill (PPI) and Visual Analog Scale (VAS). In addition, a six-point combination word number scale an additional subscale of the McGill Pain Questionnaire was used as an indicator of pain intensity.

Reliability of the construct was checked by administering the questionnaire to 500 patients. The results of this survey are presented together with exploratory analyses that assessed the independent roles of each determinant of pain after adjusting for all the other variables. The details are summarized in Table IA and IB.

Overall, 99 out of the 149 evaluated patients suffered pain at the time of interview. All of the patients reported severe back pain problems along with stiffness in the neck and frequent pain in the knees. The most common etiological cause for the chronic pain was found to be Arthritis and Neuropathy.

The highest disability scores were recorded in response to item no. 6, 7 and 10 i.e. squatting on the toilet or sitting cross-legged on the floor, Bend down to pick up clothing from the floor? And Walk three kilometers. Disability index values obtained with 12-ADL HAQ were high the mean Disability index was 28.50. Pain Intensities recorded by McGill (PPI) and (VAS) were found to be 2.360.

An epidemiological approach, of the study, describes the prevalence of pain among well-defined rural area and analyzes its determinants, as a significant deterioration in health-related quality of life and psychological well-being is observed. Evidence reviewed in this paper suggests that a majority of elderly people experience the pain of an intensity sufficient to interfere with normal functioning in day to day activities and that a significant proportion of these individuals do not receive appropriate treatment for this pain.

The failure to adequately treat the elderly patient may be due to several factors. Three significant factors which may contribute to the inadequate treatment of geriatric pain patients are (1) lack of proper pain assessment; (2) potential risks of pharmacotherapy; and (3) misconceptions regarding both the efficacy of non-pharmacological pain management strategies and the attitudes of the elderly towards such treatments. It is necessary for proper planning and delivering effective responses to this medical problem as a significant proportion of elderly people do not receive adequate pain management. To conclude Chronic pain is a major problem in the rural community and a detailed understanding of the epidemiology of chronic pain is essential for efficient management of chronic pain in primary care.

**EXPERIMENTAL**

**RESULT:**

**Table 1- Population census of the participants of pain survey:**

Name of Village	No. of Patients				Total no. of Patients
	Age Below 50		Age Above 50		
	Male	Female	Male	Female	
Narsinhpur	36	37	44	32	149

**Patient suffering from pain:**



**CONCLUSION:**

The intensity of pain increases as the age increases that is the pain is more severe in old person than that of the young person. Chronic pain is a major problem in the rural community and a detailed understanding of the epidemiology of chronic pain is essential for efficient management of chronic pain in primary care.

**Table No IA Demographic Data, Pain Location, and Etiology of Pain Complaints Identified from Medical Record (N = 149)**

<b>Characteristics</b>	<b>Value</b>
Age in years (mean; range )	55.82 [35-92]
<b>Sex</b> (mean; range)	
Male	80 [53.69] [35-92]
Female	69 [46.30] [35-84]
<b>*Pain Location</b>	<b>Frequency N ( % )</b>
Normal no. of patient	50 (33.55%)
Back	25 (16.77%)
Knee	42 (28.18%)
Foot/ankle	16 (10.73%)
Shoulder	12 (8.05%)
Neck	2 (1.34%)
Wrist	5 (3.35%)
Headache	15 (10.06%)
Hip and Abdomen	11 (7.38%)
Chest wall	1 (0.67%)
Elbow	11 (7.38%)
Heart/Angina	21 (14.09%)
Rectal/Pelvic	1 (0.67%)
Face/Jaw	0 (0%)
<b>Etiology</b>	<b>Frequency N (%)</b>
Diabetes	20 (13.42%)
Arthritis	2 (1.34%)
Migraine	7 (4.69%)
Asthma	3 (2.01%)
Old fractures	4 (2.68%)
Malignancy	0 (0%)
Muscle spasm	3 (2.01%)
Paralysis	1 (0.67%)

**Table IB ADL-wise mean score for rural HAQ and pain intensity scores measured by Mc Gill pain intensity subscale (PPI) and visual analog scale.**

<b>The activity of daily living (ADL): Are you able to:</b>	<b>Mean scores (%)</b>	<b>Number (%) with scores of 1 to 3</b>
1. Dress, including tying sari/salwar /dhoti/pyjama and doing buttons?	6[4.02]	6[4.02]
2. Get in and out of bed?	3[2.01]	3[2.0]
3. Lift a full cup or glass to your mouth?	2[1.34]	2[1.34]
4.Walk outdoors on flat ground?	12[8.05]	10[6.7]
5.Wash and dry your entire body?	10[6.71]	10[6.71]
6. Squat in the toilet or sit cross-legged on the floor?	23[15.43]	14[9.39]
7. Bend down to pick up clothing from the floor?	17[11.40]	17[11.40]
8.Turn a tap on and off?	4[2.68]	4[2.68]
9. Get in and out of auto rickshaw/car?	54[36.24]	45[30.20]
10.Walk one-two kilometers?	71[47.65]	66[44.29]
11. Shop in a vegetable market?	61[40.93]	41[27.51]
12. Climb a flight of stairs?	80[53.69]	62[41.6]
<b>Total mean score</b>	<b>28.50[19.12]</b>	<b>23.33[15.65]</b>

**Pain Intensity as measured By McGill Pain Intensity Subscale**

<b>Scale</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Feature</b>	<b>No Pain</b>	<b>Mild</b>	<b>Discomforting</b>	<b>Distressing</b>	<b>Horrible</b>	<b>Excruciating</b>
<b>Total</b>	<b>54</b>	<b>64</b>	<b>22</b>	<b>5</b>	<b>3</b>	<b>1</b>
<b>%</b>	<b>0</b>	<b>42.95</b>	<b>14.76</b>	<b>3.35</b>	<b>2.01</b>	<b>0.67</b>
<b>( McGill PPI ) = 19</b>						
<b>II] 100mm Visual Analog Scale for assessment of severity pain</b>						
No pain [-----] Very severe pain						
<b>VAS = 2.360</b>						

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