SOCIODEMOGRAPHIC STUDY OF PATIENTS WITH CHRONIC PAIN

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SUMMARY

Socio-demographic correlates of chronic pain have been described in this study. 200 consecutive chronic pain patients referred from different clinics were examined in detail and their clinical descriptions were recorded. No significant correlation could be established between qualitative description of pain and socio-demographic variables. Pain reported by rural patients was more often severe \((P < .01)\) as compared to the urban patients. Patients diagnosed as neurotic depression were found to be from older age groups, married and matriculates. Thus pain appears to be universal in its distribution and has no preferential predilection to any demographic group.

Introduction

At one time or another, pain is a matter of intense personal interest and concern to almost every one of us. Very often pain becomes chronic, a persistent and seemingly useless burden that inflicts suffering and disability and out of proportion to any discoverable physical pathology. Taken together, the costs of chronic pain to individuals and their families, to employers, insurers and treatment providers are enormous. The person who suffers such pain seeks help, often with increasing desperation, through a health care system which is now awakening to the importance of chronic pain as a medical entity, that demands a new body of knowledge reflected in professional training and in new approaches to treatment.

Chronic pain remains an enigma that can mystify even the most experienced clinician. We are now aware that pain is multidimensional in that there may be numerous precipitating factors and various concomitants. Some are clearly organic and have physiologic manifestations; however, there is a growing body of knowledge that psychologic, neurologic, physiologic, psychosocial, ethnocultural, motivational, cognitive and affective (conditioned) factors all contribute to that sensory experience that we interpret as pain.

However, the present knowledge is inadequate regarding the socio-demographic, psychometric and diagnostic aspects of pain. Such knowledge could be useful towards understanding of chronic pain and planning effective management of such patients. Though it is a widely prevalent problem in our country practically no reliable data have been reported from India regarding the clinical manifestations and psychosocial correlates of pain behaviour.

Psychiatric problems in association with pain are numerous. Robert Large (1980) had described a pain clinic population and found most patients with chronic pain to be middle aged and over-representation by females. Garron and Leavitt (1979) reported that the effects of demographic variables are both unsystematic and small. Pain descriptors that might be affected by varying social characteristics do not cluster across subjects in sufficiently consistent ways to affect pain scores systematically. Age, race, sex and education make either no differ-

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ences or a minimal difference in the way patients report pain (Garron and Leavitt 1979). Chronic pain has a profound impact on the family and it particularly affects the family relationships.

Previously, we have reported the psychiatric aspects of pain, presence of psychiatric and depressive symptoms as well as patterns of illness behaviour in these pain patients (Varma et al 1983, 1986a, 1986b; Chaturvedi et al 1984, 1985). The present report pertains to the socio-demographic characteristics of patients presenting with chronic intractable pain.

Material and Methods

Two hundred consecutive new patients reporting to various clinics of Post-graduate Institute of Medical Education and Research, Chandigarh were included after screening. The sample included patients with the first or second volunteered complaint of ‘pain’ of duration of three months or more and if the pain free period has not exceeded 4 days at a time. For the purpose of study, pain was operationally defined as the complain of ‘pain’ referred to the body or any part of it. Patients below 15 years of age or above 65 years of age and those with gross organic lesion sufficient to explain the severity of pain were excluded. The patients thus included in the study were examined and interviewed clinically to collect data regarding their:

i. Socio-demographic characteristics, as age, sex, marital status, religion, education, occupation and residential background.

ii. Clinical characteristics of pain as the site of pain, quality of pain, severity, duration and frequency of pain.

iii. Psychiatric examination was done and psychiatric and physical diagnosis were given wherever applicable.

These details were taken from the patient as well as reliable informants accompanying the patient.

Results

The mean age of the sample was 38.24 ± 11.89. 28.5% of patients belong to age group 15-29 years; 38.5% to 30-44 years and 33% to age group between 45-65 years. There were 56.5% males and 43.5% females.

| Number | % age |
|--------|------|
| 57     | 28.5 |
| 77     | 38.5 |
| 66     | 33   |
| 113    | 56.5 |
| 87     | 43.5 |
| 39     | 19.5 |
| 161    | 80.5 |
| 137    | 68.5 |
| 59     | 29.5 |
| 4      | 2    |
| 42     | 21   |
| 54     | 27   |
| 104    | 52   |
| 54     | 27   |
| 62     | 31   |
| 43     | 21.5 |
| 21     | 10.5 |
| 30     | 15   |
| 170    | 85   |

19.5% were single, 80.5% ever married; 68.5% were Hindus and 29.5% were Sikhs. 52% of subjects were educated beyond high school, 27% matriculate and 21% were illiterate or educated upto primary school. Characteristics of pain and their clinical diagnosis have been described elsewhere (Varma et al 1983). Under the occupational classification housewives outnumbered all other categories, they were 31.5%. Clerical and unskilled category accounted for 31% and 27% belonged to the professional and semi-professional group. 85% patients belonged to urban background.

Relationship of Pain with Socio-Demographic variables and description of pain.

No preferential site was found for any
particular quality of pain. Also, no significant correlation could be established between the qualitative description of pain and socio-demographic variables or clinical diagnosis—physical or psychiatric. The intensity of pain had no specific relationship with the

| Table 2 | Main Qualitative Type of Pain |
|---------|-----------------------------|
|         | Dull | Pricking | Piercing | Squeezing | Burning | Pulling | Shock-Like |
| Total   | 200  | 77      | 48       | 34        | 41      |
| Age     |       |         |          |           |         |         |            |
| 15-29 Years | 57    | 23      | 15       | 8         | 11      |
| 30-44 Years | 77    | 28      | 17       | 13        | 19      |
| 45-65 Years | 66    | 26      | 16       | 13        | 11      |
| Sex     |       |         |          |           |         |         |            |
| Male    | 113   | 46      | 32       | 14        | 21      |
| Female  | 87    | 31      | 16       | 20        | 20      |
| Marital Status |     |         |          |           |         |         |            |
| Single  | 39    | 16      | 11       | 5         | 7       |
| Married | 161   | 61      | 37       | 29        | 34      |
| Religion |       |         |          |           |         |         |            |
| Hindu   | 137   | 57      | 28       | 24        | 28      |
| Sikh    | 59    | 20      | 17       | 10        | 12      |
| Others  | 4     | 0       | 3        | 0         | 1       |
| Education |       |         |          |           |         |         |            |
| Up to Primary | 42    | 14      | 11       | 7         | 10      |
| Matric  | 54    | 22      | 13       | 8         | 11      |
| Above Matric | 104  | 41      | 24       | 19        | 20      |
| Profession |       |         |          |           |         |         |            |
| Prof./Semi-Prof. | 54    | 20      | 16       | 10        | 8       |
| Clerical & Unskilled | 62    | 24      | 16       | 7         | 15      |
| Housewives | 63    | 22      | 11       | 15        | 15      |
| Others  | 21    | 11      | 5        | 2         | 3       |
| Background |       |         |          |           |         |         |            |
| Rural   | 30    | 13      | 9        | 4         | 4       |
| Urban   | 170   | 64      | 39       | 30        | 37      |

| Table 3 | Duration of Pain |
|---------|------------------|
|         | Less than one Day | More than one Day but less than one Week | More than one Week but less than one Month | Continuous |
| Total   | 200  | 41    | 9     | 3     | 147  |
| Age     |       |       |       |       |      |
| 15-29 Years | 57    | 13    | 3     | 0     | 41   |
| 30-44 Years | 77    | 14    | 3     | 2     | 58   |
| 45-65 Years | 66    | 14    | 3     | 1     | 48   |
| Sex     |       |       |       |       |      |
| Male    | 113   | 24    | 3     | 1     | 85   |
| Female  | 87    | 17    | 6     | 2     | 62   |
| Marital Status |     |       |       |       |      |
| Single  | 29    | 10    | 2     | 0     | 27   |
| Married | 161   | 31    | 7     | 3     | 120  |
| Religion |       |       |       |       |      |
| Hindu   | 137   | 29    | 8     | 1     | 99   |
| Sikh    | 59    | 11    | 1     | 2     | 45   |
| Others  | 4     | 1     | 0     | 3     | 3    |
| Education |       |       |       |       |      |
| Up to Primary | 42    | 6     | 2     | 1     | 33   |
| Matric  | 54    | 13    | 1     | 2     | 38   |
| Above Matric | 104  | 22    | 6     | 0     | 76   |
| Profession |       |       |       |       |      |
| Prof./Semi-Prof. | 54    | 12    | 3     | 0     | 39   |
| Clerical & Unskilled | 62    | 11    | 2     | 1     | 44   |
| Housewives | 63    | 13    | 3     | 2     | 45   |
| Others  | 21    | 5     | 1     | 0     | 15   |
site of pain. Forty of the fifty seven patients in age group 15-29 years reported mild pain and the elder age group (45-65 years) reported moderate or severe pain. However, this was not statistically significant. The intensity of pain had a significant correlation with the education, residential background and physical diagnosis (Table 5). Patients educated up to matric reported pain as ‘severe’ whereas those of higher education reported ‘mild’ pain. Mild pain was relatively less reported by patients educated up to primary, and matriculation (p < .05). Patients from rural background reported pain as severe whereas patients from urban background pain to be mild (p < .01). There was no correlation with the occupational background. Patients with neoplasms and neural pathology (e.g. trigeminal neuralgia) reported pain to be moderate (p < .01). 66% of cases having ‘no organic problem’ had ‘mild’ pain.

There was no statistical correlation between duration of pain and the clinical or socio-demographic variables. It was observed that almost 90% of patients with musculoskeletal disorders (arthropathies, arthritis etc) and 74% of nil organic patients had continuous pain. The frequency of pain was significantly related to the physical diagnosis (p < .01). Only 2% of patients with musculoskeletal disorder had pain once a week or more often but not daily.

Majority of cases diagnosed as neurotic depression were married, older age group and matriculates. All cases of psychalgia came from urban background, mainly clerical profession, educated above matric and Hindu. Patients had reported pain in various parts of body irrespective of the psychiatric diagnosis. Most cases diagnosed as neurotic depression or anxiety neurosis had not sought any previous psychiatric treatment.

| Table 4: Frequency of pain | Once a week or more | Once or several times a day | Continuous |
|----------------------------|--------------------|---------------------------|------------|
| Age 15-29 Yrs              | 57                 | 12                        | 41         |
| 30-40 Yrs                  | 77                 | 13                        | 58         |
| 45-65 Yrs                  | 66                 | 7                         | 48         |
| Marital Status             |                    |                           |            |
| Single                     | 39                 | 9                         | 27         |
| Married                    | 161                | 23                        | 120        |
| Religion                   |                    |                           |            |
| Hindu                      | 137                | 23                        | 99         |
| Sikh                       | 59                 | 8                         | 45         |
| Others                     | 4                  | 1                         | 3          |
| Education                  |                    |                           |            |
| Upto Primary               | 42                 | 3                         | 33         |
| Matric                     | 54                 | 8                         | 38         |
| Above Matric               | 104                | 21                        | 76         |
| Profession                 |                    |                           |            |
| Prof./Semi Prof.           | 54                 | 8                         | 39         |
| Clerical Unskilled         | 62                 | 10                        | 48         |
| HI/Wives                   | 63                 | 10                        | 45         |
| Others                     | 21                 | 4                         | 15         |
| Background                 |                    |                           |            |
| Rural                      | 30                 | 3                         | 23         |
| Urban                      | 170                | 29                        | 124        |
Table 5

Intensity of pain

|         | Total | Mild | Moderate | Severe | P   |
|---------|-------|------|----------|--------|-----|
| Age     |       |      |          |        |     |
| 15-29 Yrs | 57    | 40   | 14       | 3      |     |
| 30-44 Yrs | 77    | 49   | 25       | 3      |     |
| 45-65 Yrs | 66    | 30   | 30       | 6      | NS  |
| Marital Status |       |      |          |        |     |
| Single | 39    | 27   | 10       | 2      |     |
| Ever Married | 161  | 92   | 59       | 10     | NS  |
| Religion |       |      |          |        |     |
| Hindu | 137   | 79   | 50       | 8      |     |
| Sikh | 59    | 39   | 17       | 3      |     |
| Others | 4     | 1    | 2        | 1      | NS  |
| Education |       |      |          |        |     |
| Upto Primary | 42   | 18   | 21       | 3      |     |
| Matric | 54    | 31   | 17       | 6      | P<.05 |
| Above Matric | 104  | 70   | 31       | 3      |     |
| Profession |       |      |          |        |     |
| Prof./Semi-Prof. | 54   | 36   | 15       | 3      |     |
| Clerical Unskilled | 62   | 37   | 23       | 2      |     |
| H/Wives | 63    | 33   | 26       | 4      | NS  |
| Others | 21    | 13   | 5        | 3      |     |
| Background |       |      |          |        |     |
| Rural | 30    | 13   | 11       | 6      |     |
| Urban | 170   | 106  | 58       | 6      | P<.01 |

Discussion

In the present report, an attempt has been made to have an equitable sample representation from various clinics to avoid any bias due to differential representation from any one particular clinic and also to be able to study the clinical and qualitative aspects of pain and their association with socio-demographic variables in patients presenting to the different clinics. This report highlights some of the socio-demographic aspects in patients presenting with pain. There is no preponderance of pain in any particular age group. There is an over-representation of male sex and those married in the sample. Large (1980), Blumer and Heilbronn (1982), Tupin and Antmanowitz (1983), Merskey (1965), Ward et al (1975) have reported an over-representation of females and middle aged patients. Similarly, there is an over-representation of patients from urban background and those with higher education. Almost three quarters of the female sample included here are housewives. There is quite a uniform distribution in the occupational categories. Whether patients from urban background and those with higher education more frequently report pain cannot be concluded from this. Their psychological sophistication, awareness and accessibility to the hospital facilities could also be the reasons for their more frequently consulting the hospital clinics, though they have relatively milder pain.

The socio-demographic aspects of the clinical and psychological variables of the pain have also been evaluated. This should throw light on any differential description of pain in any particular group of patients. As such there is no noticeable preferential site of pain or any particular quality of pain...
but with certain socio-demographic variables some of the qualitative descriptions have been found to be statistically significant. The intensity of pain has a significant correlation with the education, residential background and physical diagnosis. Mild pain was more often reported by those with higher education and from urban background. On the other hand patients from rural background and with lesser education reporting to the clinics had more severe pain resulting in biological disturbances (sleep, appetite and libido) and also disruption of social, domestic and occupational activities. This could be due to various reasons, like having poorer appreciation of the characteristics of pain, or that they try out other traditional healing methods or go to general practitioners when pain is milder and they consider help from a big institute only when pain is 'severe' enough. It could also be that they have better tolerance of pain and seek no help as long as they are able to carry out day to day activities. Those who are educated may be seeking help early in order to prevent further disturbances and have early detection of their problems. Patients from some clinics reported more severe pain. Those referred from Neurology-predominantly trigeminal neuralgia and those from cancer unit-having neoplasms reported pain to be of higher severity. The pain is actually more severe in these conditions, but the severe psychological accompaniments with malignancy and trigeminal neuralgia should not be overlooked since these psychological reactions could certainly be contributing in a more severe perception of the pain. Very few patients with musculoskeletal or digestive system disorders reported severe pain. Almost half the sample under study had absolutely no organic pathology, of this group only 5% reported severe pain (Chaturvedi et al 1984). This group of patients is probably the purer psychogenic pain group and majority report milder pain (66%). However, no significant correlation could be established between severity of pain and psychiatric diagnosis. It could be because majority of the cases had neurosis of one type or other and thus may be having equal etiological or reactive contribution in the severity of pain. The role of abnormal illness behaviour and its relationship with the socio-demographic characteristics cannot be commented upon (Pilowsky and Spence 1975, Varma et al 1986).

No significant correlation between duration and frequency of pain with socio-demographic variables has been found thereby underemphasising the latter's role in modifying these characteristics of pain.

A majority of cases (72%) suffer from a psychiatric problem. Though no significant correlation could be found between the clinical descriptions of pain and psychiatric diagnosis, the relevance of psychiatric illness in the study of pain cannot be overlooked (Varma et al 1983). Some socio-demographic findings with regard to psychiatric diagnosis could be of interest to note here. A majority of cases diagnosed as Neurotic depression were married, of older age group and matriculate. The stress of older age and associated marital and family problems could have contributed along with the pain to the depression in these patients. All cases of psychalgia (6) came from urban background, were of higher education and Hindu religion. Because of the small number of cases this should not be interpreted directly.

Thus one can conclude about the universality of pain in all age groups and in people from different socio-demographic background. It would certainly be very interesting to study further the reasons of patients from rural backgrounds and lower education presenting with more severe pain. Beside this, age, sex, education, profession, religion, marital status and habitat seem to make no significant difference in
the presentation of pain as regards its site, quality, duration, frequency and intensity (except the factors already discussed). This probably emphasises the language of pain being uniform and the need to look into other factors like personality, biological factors etc. to understand the presentation of pain.

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