

## PSYCHIATRIC ASPECTS OF CHRONIC INTRACTABLE PAIN

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### SUMMARY

Two hundred patients with chronic intractable pain have been evaluated in order to study the clinical characteristics of pain and associated psychiatric illnesses. The commonest site of pain was reported to be head and face, usually dull in nature. Almost 75% of patients reported continuous pain. A great majority (40%—80%) had some psycho-social problem or other problem resultant from the chronic pain. 72% patients had identifiable psychiatric illness, commonest being neurotic depression and anxiety states. The common symptoms reported on the Present State Examination (PSE) were worrying (77%), depression (40%), hypochondriacal pre-occupation (35%), autonomic anxiety (42%) and irritability (40%). There is no specific clinical characteristic associated with any particular psychiatric diagnosis. The relevance of psychiatric symptoms and illness associated with chronic pain has been discussed.

Pain, very often, becomes chronic, a persistent and seemingly useless burden that inflicts suffering and disability and is out of proportion to any discoverable physical pathology. Chronic pain remains an enigma and can be a challenge for even the most experienced clinician.

Psychiatric problems in association with chronic pain are numerous. The commonest association is with depressive disorders where pain has been reported as a common symptom (Baker and Merskey, 1967; Merskey, 1963; Spear, 1967), or as a variant of depressive disease (Blumer and Heilbronn, 1982; Sternbach, 1980) or may share a common pathogenesis (Sternbach, 1974; Knorrning, 1975). Various authors (Singh, 1968; Spear, 1967; Knorrning *et al.*, 1983) have reported pain as a symptom in 56-65% of patients with depressive disorders while Ward *et al.* (1979) reported pain as a symptom in 100% of

their patients with anxious-depression. Large (1980) described his pain clinic patients to be having depression, personality disorder, traumatic neurosis, anxiety, hysteria and drug dependence, however, depression was commonest (30%). Pain has been reported from India in patients suffering from such psychological illnesses as depression, hypochondriasis and Hysteria (Singh and Verma, 1971; Agarwal *et al.*, 1973; Singh *et al.*, 1974; Prakash and Sethi, 1978).

Patients with chronic and intractable pain with no clear organic basis represent a considerable problem in medical practice. Relationships between manifestations of, and reaction to pain, and response to treatment on one hand, and socio-cultural and psychological factors on the other have been suggested. However, the present knowledge is inadequate regarding the socio-demographic, psycho-

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metric and diagnostic aspects of chronic pain. Such knowledge could be useful towards understanding of chronic pain and planning in effective management of such patients.

Since not enough is available in the Indian literature we decided to carry out a study of chronic pain and its association with psychiatric disorder.

#### MATERIAL AND METHODS

Two hundred consecutive new patients reporting to various medical, surgical and pain clinics of Postgraduate Institute of Medical Education and Research, Chandigarh were screened and then included in the study. The sample included patients with the first or second volunteered complaint of 'Pain' of a duration of three months or more and also if the pain free period has not exceeded 4 days at a time. For the purpose of this study, pain was operationally defined as a 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 (age, sex, marital status, religion, education, occupation and residential background).
- ii) Clinical characteristics of Pain such as, the site of pain, quality of pain, severity, duration and frequency of pain.
- iii) Psychiatric examination using the present state examination (PSE) 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

##### *Description of Sample : (TABLE 1)*

TABLE 1. *Characteristics of Sample. (N=200)*

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<i>Age</i>			
Mean		38.24 Yrs.	
S. D.		11.89	
<i>Sex</i>			
		N	%
Male		113	56.5
Female		87	43.5
<i>Religion</i>			
Hindu		137	68.5
Sikh		59	29.5
Others		4	2.0
<i>Education</i>			
Upto Primary		42	21.0
Upto Matric		54	27.0
Above Matric		104	52.0
<i>Residence</i>			
Rural		30	15.0
Urban & Semi Urban		170	85.0
<i>Marital Status</i>			
Single		39	19.5
Married		161	80.5
<i>Occupation</i>			
Professional and Semi professional		54	27.0
Clerical/Unskilled		62	31.0
House-wives		63	31.5
Student/Retired		21	10.5
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The mean age of the sample was  $38.24 \pm 11.89$  years. 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; 19.5% were single, 80.5% married and 68.5% were Hindus and 29.5% were Sikhs. 52% of the subjects were educated beyond high school. 27%

matriculate and 21% were illiterate or educated upto primary school. Under the occupational classification housewives (31.5%) outnumbered all other categories. Clerical and unskilled category accounted for 31%. 27% belonged to the professional and semi-professional group. 85% of patients had an urban background.

#### CLINICAL DESCRIPTION OF PAIN

*Site of pain* : The commonest first site of pain was reported to be head, neck and face (28%). 23.5% of subjects had pain in chest and abdomen. 15% reported backache as the first site of pain. As many as 13% of subjects reported pain all over the body.

Pain over head, face and neck was reported by ninety one (45.5%) of patients as one of the three sites of pain. Whereas eighty five patients (42.5%) reported pain over chest and abdomen, seventy four (37%) reported pain in extremities (Table 2)

TABLE 2. *Intensity of Pain*

Site of Pain (Organ system wise)	Total (N=200)	Mild	Moderate	Severe
		(N=119)	(N=69)	(N=12)
Head, face and neck	56	24	28	4
Chest- Abdomen	47	30	15	2
Back and Lower back	30	21	8	1
Extremities	41	26	12	3
Whole body and Others	26	18	6	2

*Type of Pain* : Seventy seven patients reported dull pain as the prominent type of pain, pricking, burning type of pain

was the second commonest type reported by 40% of patients. Besides, there was no other specific predominance of any particular type of pain (Table 3).

TABLE 3. *Qualitative Description of Pain*

Psychiatric Diagnosis	Total	Dull	Pricking piercing Burning	Squee- zing Boring pulling	Thro- bbing Burst- ing shock- Like
	(N=200)	(N=77)	(N=48)	(N=34)	(N=41)
Anxiety States	38	15	7	8	8
Depressive Neurosis	61	25	13	12	11
Hysteria and Hypochond- riasis	26	10	10	2	4
Psychalgia	6	3	0	0	3
Psychoses	3	1	1	1	0
Others	10	2	3	3	2
Non Psy- chiatric	56	21	14	8	13

Majority (59.5%) of patients reported pain to be mild in intensity, 34.5% had biological disturbances e.g. of sleep or appetite. Only 6% had severe pain (Table 2). 73.5 percent of patients reported pain to be continuous. 20.5% had pain which lasted less than one day in duration. In the category frequency of pain, 16% had pain once a week or more and 10.5% had pain once or several times a day (Table 5, 6). 13.5% cases had duration of illness more than 5 years and 15 per cent had a total duration of illness of less than 6 months. 38.5% had a duration of illness of less than 6 months. 38.5%

TABLE 4. *Intensity of pain*

	Mild Moderate severe			
	Total 200	119	69	12
<i>Physical Diagnosis</i>				
Neoplasms	10	1	8	1
Nervous system	21	4	14	3
Digestive system Disorders	14	10	3	1
Genitourinary Disorders	7	6	1	0
Musculoskeletal Disorders	42	28	12	2
Others	6	4	2	0
Non Organic	100	66	29	5

$\chi^2=31.05, p<.01$

TABLE 5. *Frequency of Pain*

	Total 200	Once a week or more	Once or several times a day.	Continuous.
		32	21	147
<i>Physical Diagnosis</i>				
Neoplasms	10	2	5	3
Nervous system	21	3	3	15
Digestive system Disorders	14	3	2	9
Genitourinary Disorders	7	4	0	3
Musculoskeletal Disorders	42	1	3	38
Others	6	0	1	5
Non-Organic	100	19	7	74

$\chi^2=37.46, p<.01$

TABLE 6. *Duration of Pain*

	Total 200	Less than one day	More than one day but less than one week	More than one week but less than one month	Continuous.
		41	9	3	147
<i>Psychiatric diagnosis</i>					
Anxiety States	38	9	3	1	25
Depressive Neurosis	61	11	2	2	46
Hysteria and Hypochondriasis	26	4	2	0	20
Psychalgia	6	2	0	0	4
Psychosis	3	2	0	0	1
Others	10	0	0	0	10
Non Psychiatric	56	13	2	0	41

had a duration of illness more than six months but less than a year.

#### PSYCHOLOGICAL PROBLEMS ENCOUNTERED (TABLE 7)

TABLE 7. *Psycho-Social Problems Encountered :*

	N	Percentage
Absenteeism	71	31.5
Marital discord	16	8.0
Lack of work motivation	116	58.0
Personal dissatisfaction	165	82.5
School/College disruption	15	7.5
Disinterest in work	110	55.0
Social Problem	87	43.5
Domestic problem	44	22.0

Various psychological problems associated with chronic pain were probed into.

However, the cause and/or effect relationship was difficult to establish. The common problems reported were personal dissatisfaction (82.5%), lack of work motivation and disinterest in work (55-58%), absenteeism for work (35.5%), social problems (43.5%). Only 15 subjects reported school or college disruption.

92 percent patients denied any marital discord and 22% denied having domestic or family problems.

#### PSYCHIATRIC AND PHYSICAL DIAGNOSIS (TABLE 3, 4, 5, AND 6)

Half the cases had no organic problems of any severity or type, the other half had some organic pathology but it was not considered to be sufficient enough to explain the pain, by the physicians. Of the latter group forty two had musculoskeletal disorders as arthropathies, arthritis or spondylosis. Twenty one patients had some neural involvement e.g. trigeminal neuralgia or neuropathy. Ten cases had malignancy and fourteen could be diagnosed as having G. I. malfunctions.

One hundred and forty four (72%) cases had identifiable psychiatric problems, with a predominance of neurosis. 30.5% were diagnosed as neurotic depression, 19% as Anxiety states or neurosis, 13% as hysteria or hypochondriacal neurosis. Six patients were diagnosed as psychalgia. Only three patients had psychosis. However, 56 cases (28%) had no identifiable psychiatric disorder, of which fourteen cases could not be assigned either a physical or psychiatric diagnosis by the physician or psychiatrist. These cases had no identifiable organic pathology or emotional problems. No significant association could be established between the qualitative description of pain and clinical diagnosis-physical or psychiatric (Table 3). Patients with neoplasms and neural pathology (e. g. trigeminal neuralgia) reported pain to be moderate ( $p < .01$ ). 66% of cases with mild pain had no organic patho-

logy. However, no significant association was found between psychiatric diagnosis and intensity of pain.

There was no statistical association between duration of pain and the clinical variables (Table 6). It was noticed that almost 90% of patients with musculoskeletal disorders (arthropathies, arthritides etc.) and 74% of non organic patients had continuous pain. The frequency of pain was significantly related to the physical diagnosis ( $p < .01$ ) (Table 5). Only 2% of patients with musculoskeletal disorder had pain once a week or more but not daily.

Majority of cases diagnosed as neurotic depression were married, older age group, matriculates. All cases of psychalgia came from urban background, mainly clerical profession, educated above matric and Hindu. Patients have reported pain in various parts of body irrespective of the psychiatric diagnosis.

#### PRESENT STATE EXAMINATION :

The common symptoms reported on the present state examination were worrying (77%), feeling unwell physically (87%), hypochondriacal pre-occupation (35%), tension pains (29%), restlessness (43%), nervous tension (30%), tiredness or exhaustion (47%). Freefloating autonomous anxiety was reported by 42% of which 7% had intense anxiety. Depression was also reported by many patients. 5% of the sample reported intense depression and 35% had moderate degree of depression. Other depressive concomitants were also reported, namely loss of interest (31.5%), hopelessness (16.5%), social withdrawal (9.5%), self-depreciation (5.5%), loss of appetite (18%), loss of libido (16%). 8% had suicidal ideas. On inquiring whether anxiety or depression is primary 24.5% reported anxiety to be primary and 26.5% reported depression to be primary. In 41% both Anxiety and depression were present but seemed

independent of each other or it was not possible to decide whether one of them was primary. Irritability was another affective disturbance noticed. 40.5% reported the feelings of irritability but most kept it to themselves. On rating the social impairment due to mental disorder it was found that 72% had no social impairment, 21% had symptoms which caused little diminution in patients efficiency, in 6% there was a moderate to severe incapacitation in their social relationships. Pre menstrual exacerbation of symptoms was reported by 32% of all the female patients in the sample.

#### DISCUSSION

The findings of this study are very interesting and also significant. The clinical description of pain is such that it shows no preferential site or type of pain. The pain can be anywhere in the body. Almost all qualitative descriptions of pain are reported with slight predominance of dull aching pain. The absence of any characteristic description of pain probably makes chronic pain an enigma for the treating physician (Melzack, 1973). Most patients have reported continuous pain, which is in harmony with other studies on chronic pain (Blumer and Heilbronn, 1982). The selection of patients is such that all patients have a non-organic origin of pain. Even cases with additional physical illness were considered by their physicians as having pain disproportionate to their physical lesions or different in nature. It is also significant to note that almost three quarters of the patients had identifiable psychiatric illness. That neurotic or reactive depression and anxiety neurosis was the commonest psychiatric diagnosis does not come as a surprise as there are numerous studies reporting chronic pain in various associations with depression (Merkey, 1965; Singh, 1968; Singh and Verma, 1971; Garron and Leavitt, 1979; Large, 1980). The diagnosis of hysteria

and hypochondriasis in chronic pain patients has also been reported. Psychosis was relatively infrequent. It could be low in the present study since only those patients have been included who volunteered the first or second complaint of pain. Patients with any psychosis usually give other disturbing symptoms as chief complaints. Many psychotics could be reporting or suffering from chronic pain but such cases have got excluded because of the screening procedure.

Another important finding is that 28% of the cases had no identifiable psychiatric disorder. Most of these cases had associated physical illness but the reasons of their probable exaggeration of pain could not be identified by psychiatric examination or psychometry. It may be that the subjective assessment of their physicians could be erroneous or the patients denied any psychological or emotional reasons for the pain or that the repeated psychiatric examination using PSE and psychometry could not reveal any psychiatric problem. These cases could also be Idiopathic chronic pain as has been reported by Williams and Spitzer (1982). It holds true more so for about 7% of the cases who have no psychiatric or physical facilities and are disturbed by the chronic pain. Such cases should be studied in greater details with extensive psychometry and other investigations for their apt management.

Musculoskeletal disorders were the commonest of the physical illnesses. That the intensity and frequency of pain is significantly correlated to physical diagnosis is more so due to the varied selection from various clinics. Patients with malignancy and trigeminal neuralgia have more often reported moderate to severe pain. It could be that the psychological disturbances accompanying these illnesses further aggravate the intensity of pain.

The present State Examination (PSE) reveals the predominance of depressive

symptoms. Almost 77% of patients have depression alone or associated with anxiety. It is, however, less than 100% patients reporting depression in study by Ward *et al.* (1979), but it is more than the 56-65% patients with symptoms of depression reported by some studies (Singh, 1968; Spear, 1967; Knorrning *et al.*, 1983). It could be because the patients included in our study have chronic, continuous and intractable pain in many cases. Anxiety is also present in about 75% cases and makes it an important feature in presentation of chronic pain. Various manifestations of anxiety as autonomic freefloating anxiety, worrying, tension, pains, nervous tension, tiredness and restlessness have been reported by 30-77% of the patients. Irritability is also marked, as it was found also by Pilowsky and Spence (1976).

That chronic pain causes marked psychosocial disturbances is evident from Table 7. Most patients could clearly relate the psychosocial problems to be resulting out of the chronic pain. Chronic pain causes a lot of personal dissatisfaction and affects the occupation, domestic and social life of the person. However, majority have reported no marital problems or any discord. Whether it is just denial or actually less marital problems are caused would be difficult to infer at present.

It appears that psychiatric illness could be primary in many cases but depression and 'worrying' could be a consequence of chronic pain. Clear cut psychological precipitating factors were present in some cases, but whether they have any etiological role needs to be looked into.

Thus psychiatric illness and chronic pain are intimately related, however it would require extensive research and long term studies to establish the exact relationship.

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