Psychological and Psychiatric Aspects of Chronic Pain Syndrome

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Recent research in the field of chronic pain has highlighted the importance of the assessment of psychological factors as part of the overall assessment of chronic pain patients. Psychological factors come into play not only in the genesis of the chronic pain syndrome but also in the kind of behaviour displayed by the sufferer in obtaining or not obtaining the kind of help he thinks he needs. The psychological meaning of pain on the intra-personal level and the societal response to those who complain of pain (the inter-personal response) can greatly affect the way people respond to and develop into chronic pain sufferers. Psychiatrists and psychologists have also contributed to the classification and more refined diagnosis of chronic pain syndromes. A number of different approaches have been taken to make a psychological evaluation, ranging from formal assessment of psychiatric illness to self-report questionnaires and clinical evaluation. Furthermore, psychological therapies and psychotropic medication now constitute a main part of the modern approach to chronic pain syndrome management. The local cultural and personal factors which can affect the chronic pain syndromes in their development and their management are examined. Finally, some general recommendations for the better management of chronic pain syndrome patients are made.

Keywords: Chronic pain. Pain measurement. Psychological aspects. Psychiatry and medicine.


Until recently little attention has been paid to pain except in its role as an indication of physical disease. While that is true for acute pain, chronic pain hardly ever serves any biological function. Chronic pain causes a great degree of human suffering at a huge cost to both the individual and the state. In the USA, it is estimated that 3.3% of the population are permanently disabled due to pain. In 1985, in the UK there were 330,000 hospital inpatient treatments, averaging 2 weeks. Of these patients, 60% had unspecified backache which was still undiagnosed at the time of discharge.1

Furthermore, there is a gradual accumulation of evidence to show that pain per se might prove harmful to health, for example pain and stress can have a deleterious effect on immune function and enhance tumour growth in laboratory animals.2

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Psychiatrists have come to be involved in the fields of work related to pain. Their involvement came as a natural consequence to evidence of a special relationship between psychological factors and complaints of pain and vice versa. Delaplane et al. found pain to be a complaint by 86 of 227 patients admitted to a psychiatric hospital. A physical cause for pain was found only in 27 cases. Women appeared more prone to have pain as a complaint and this was less often due to a physical cause. The authors concluded that pain is a relatively common symptom in psychiatric patients and its aetiology is emotional in many instances. On the other hand, Turner & Romano have screened patients referred to pain clinics, using self-reports, and found that one-third of the sample would meet standard diagnostic criteria for major depression. This percentage is markedly high compared with the prevalence of major depression in the general population. To examine the nature of the relationship between mood and pain, Mohamed et al. studied 13 patients with depression and persistent pain and a control group of 13 matched subjects with depression without the association of pain. The patients with depression and pain reported more severe depressive symptoms, many pain problems in the past and pain problems in their spouses and families. The location of pain seemed related to the pain which affected other significant persons in the patient’s life.

It is possible, therefore, to see the special relationship between psychological factors and pain. This article contains a summary of the main contributions from psychiatrists and allied disciplines in the study and management of chronic pain. In the latter part of the article observations on local cultural factors in relation to pain are discussed.

As psychiatrists have come to be involved in the assessment and management of pain, they have contributed in a variety of ways which include:

- The provision of models for understanding chronic pain patients.
- The classification of pain syndromes.
- The refinement of clinical evaluation and diagnosis.
- The provision of pharmacological and psychological therapies.
- The psychiatrist also has an important role as a member of the multi-disciplinary team in pain clinics.

**Psychiatrists’ Contribution Towards a Better Understanding of Chronic Pain Syndrome**

Psychiatrists and workers in allied disciplines have attempted to understand chronic pain syndrome (CPS) and examine its complexity from three main viewpoints:

- The behaviour displayed by the sufferer and the degree of disability caused.
- The intra-personal meaning of pain for each individual.
- The inter-personal/societal response to pain sufferers.

**Behaviour displayed by the patient and degree of disability**

One concept that needs to be mentioned here in some detail to help us understand the behaviour of many CPS patients is the concept of ‘abnormal illness behaviour’ (AIB). This concept was originally formulated by Mechanic & Vokart. Abnormal illness behaviour is defined as ‘the persistence of an inappropriate or maladaptive mood of perceiving, evaluating and acting in relation to one’s own state of health despite the fact that a doctor has offered a reasonably lucid explanation of the nature of the illness and the appropriate course of management to be followed, based on a thorough examination and assessment of all parameters of functioning [including the use of special investigations where necessary] and taking into account the individual’s age, educational and socio-cultural background’. At the core of this definition is the ‘inappropriate or maladaptive mood of perceiving, evaluating and acting . . .’. It can readily be seen that the definition reflects the interactive nature of this concept. ‘Perception’ has to do mainly with information and sensations that provide the patient with data about his state of health and illness, which is partly influenced by responses of people around the patient to his complaints and the expectation of the society of somebody with a similar condition. ‘Evaluating’ has to do mostly with internal processes inside the individual’s own mind which basically depend on the data perceived but are also influenced by internal psychological factors such as memories and mental sets. ‘Acting’ is to do with the patient’s overt and covert behaviour in a way which is appropriate to his own internal evaluation of his state of illness. The way the patient acts will in turn affect how the people perceive and respond to him. Once we can appreciate the importance of the interactive nature of the concept of AIB we can understand the emphasis that the above definition lays on appropriate reassurance and explanation by the doctor.

Obvious examples of AIB can be seen in a number of pain clinic attenders. Further elaboration is needed, however, to determine the specific features of illness behaviour which characterize
CPS patients. When pain clinic patients were compared with general practice patients they were found to have greater disease conviction, somatic focusing and denial of life problems. Such patients seem to cling to the idea of being ill so strongly in the face of lack of proof of such illness to the extent that their disease conviction is significantly greater than hospitalized patients with proven painful conditions. This leads to the conclusion that the tendency to use illness behaviour and to cling to a sick role as a way of coping are the main features which characterize pain clinic attenders as a group. It is important to note, however, that only a proportion of such a group will fit into the category of AIB but such a proportion is probably substantial.

Having examined the concept of AIB and how it offers a framework for approaching pain clinic patients, caution must be exercised in accepting these findings as directly applicable to all chronic pain sufferers in other settings. As a matter of fact evidence suggests that such caution is justified. For example patients referred for the treatment of pain to a private practice clinic do not share the same characteristics as patients attending pain clinics which are not private. Also many individuals in the general population suffer from frequent pain complaints but rarely consult medical services.

A good question to be raised at this point is why some individuals seem less able to cope with their pain and end up with more disability than others? Many studies have attempted to examine the factors which promote adaptive functioning to pain. Jensen et al. critically reviewed the considerable literature on this topic and concluded that patients who believe they can control their pain, who avoid catastrophising about their condition and who believe they are not severely disabled, appear to function better than those who do not. So it seems that the ability to cope with pain is related to the personal beliefs and attitudes towards the pain which are influenced by how the individual has learned to cope with similar related experiences in the past.

The intra-personal psychological meaning of pain

Pain cannot be understood simply as a form of sensation like touch and heat. Our concept of pain is actually affected by the experiences of each one of us from a very young age. In childhood, one of the main influences on the development is the process of primary socialization which allows the child to absorb the norms of the family. The family norms will determine the acceptable form of behaviour which in turn is affected by cultural and society norms but is also affected by the unique pattern of interaction within that particular family. The specific experiences of pain, whether directly by actual suffering of pain or indirectly by witnessing other members of the family who had painful conditions appears to be especially important. In some families where aggression prevails as a means of communication between parents and between them and their children, we often find that little attention is directed to the child except at the time of punishment. Punishment by the parents, therefore, causes pain and is often followed by some provision of care and comfort. It has been suggested that the degree to which pain plays a role in gaining care and attention for a young child will greatly influence the extent to which pain and, therefore, illness behaviour achieves a prominent role in the repertoire of coping strategies.

In adults who present with complaints of chronic pain, emphasis has been placed on the prominence of depression, low self-esteem and guilt feelings in many such patients. It has been postulated that guilt-ridden individuals unconsciously seek painful situations and experiences to alleviate their own guilt feelings. The relationship between this postulated psychodynamic model of pain and the clinical findings which shows that depressive features are common in chronic pain patients is, however, unclear. It has been argued that while it is common for patients with chronic pain to use depressive language and even present with some depressive symptomatology, this does not mean that they are psychically depressed. In support of this distinction are reports that patients who were depressed on admission to pain centres often improve with no specific pharmacological or other treatment for their depression. One possible explanation to the above could be that what is being measured initially and described as depression is actually a measure of the state resulting from guilt feelings for whatever psychosocial causes. Such a proposition would explain the spontaneous improvement of depressive symptoms reported following a multi-disciplinary pain management programme since patient's membership in such a programme certified the patient's pain as genuine and deserves attention by health workers and also provides an acceptable explanation to the patient himself regarding his pain and, therefore, relieving him from his guilt feelings followed by improvement in measures of depressive symptomatology.

So in conclusion, the concept of pain is unique to each individual and is probably affected by childhood experiences of pain and the social norms
he has absorbed during his development. In adult patients, guilt, low self-esteem and depression are common findings in CPS. However, the relationship between these factors and the development and maintenance of CPS is still unclear.

The societal/inter-personal influences

As already mentioned, society dictates its acceptable codes of behaviour and this is passed to children from their families through the process of primary socialization. Societies vary considerably in the acceptable ways of expression of pain and the meaning they attach to it. Zobrowski\textsuperscript{17} found variations in pain behaviour and meaning between different subcultures in Americans. It is important to note that these variations in expression between different cultures do not manifest only in spoken/verbal expression but also in the non-verbal forms of communication. Caution is needed when the pain patient and the care giver have different mother tongues and cultural backgrounds because in such cases the communication between them is widely open for misunderstanding.\textsuperscript{18}

So in normal circumstances, an individual expressing pain in a way which conforms to societal expectations would receive the appropriate response of provision of possible care and comfort. Such provisions are provided with willingness and positivity. In CPS patients who manifest AIB, however, such provision of care and comfort are usually exploited by the patient which results in resentment and negative emotions in those providing care for the patient and have to suffer because of his disability.\textsuperscript{6} Whether such resentment and negative emotions are allowed open expression is again affected by social norms. It can be postulated that a societal code of behaviour which strongly inhibits expression of such resentment in relatives of CPS patients would result in those relatives continuing to provide the same degree of care. The patient is thus effectively and progressively relieved from any responsibilities and the scene is set for development of chronic pain syndrome and abnormal illness behaviour.

Classification of Chronic Pain from a Psychiatric Perspective

No satisfactory classification has yet been established which takes into account all the complexities and interactions involved in the development of chronic pain syndromes. Several models have been proposed. The classification presented here mainly depends on views from one side of the scientific field. This was chosen as a convenient way of presenting this topic. However, efforts have been made to use categories and criteria from the Diagnostic and Statistical Manual of Mental Disorders, third edition, revised, [DSM-III R]\textsuperscript{19} whenever possible. Other views on classification, e.g. those which represent a behavioural approach to chronic pain are important examples of the existence of different view points with wide applicability in certain centres dealing with pain. Interested readers are advised to refer to Fordyce.\textsuperscript{20}

Pilowsky has supported a view of the classification of pain syndromes which is most suited to fit conventional psychiatric categories and which depends a great deal on the concept of AIB discussed earlier in this article.\textsuperscript{6,21} Table 1 represents this view of pain syndromes with minimal modifications. Forms of pain syndromes are classified in a decision tree fashion on the basis of several differentiating points:

Predominance of psychological factors

Psychogenic disorders refer to cases where psychological factors are the chief determinants of the disorder. More often, however, the judgement by physicians on a condition as being psychogenic or non-psychogenic depends on the absence of physical causes to explain the physical complaint rather than the prominence of psychological factors. Non-psychogenic conditions on the other hand are those where the complaint of pain is consistent with a demonstrable organic pathology.

<table>
<thead>
<tr>
<th>Pain syndromes</th>
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<tbody>
<tr>
<td>Psychogenic</td>
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<tr>
<td>Non-psychogenic</td>
</tr>
<tr>
<td>e.g. cancer pain</td>
</tr>
<tr>
<td>With no insight</td>
</tr>
<tr>
<td>With partial insight</td>
</tr>
<tr>
<td>1 Chronic anxiety disorders</td>
</tr>
<tr>
<td>2 Depressive mood disorders</td>
</tr>
<tr>
<td>3 Psychotic disorders</td>
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<tr>
<td>4 Adjustment disorders</td>
</tr>
<tr>
<td>With unconscious motivations</td>
</tr>
<tr>
<td>With conscious motivations</td>
</tr>
<tr>
<td>1 Conversion disorder</td>
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<tr>
<td>2 Hypochondrias</td>
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<tr>
<td>3 Somatization disorder</td>
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<tr>
<td>4 Somatoform pain disorder</td>
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\textsuperscript{a}After Pilowsky (1986)\textsuperscript{b}
**Acceptance of psychological explanation**

Those with psychogenic pain syndromes can be further subclassified into two groups. The first consists of patients who manifest with a complaint of pain as a part of a formal psychiatric disorder. Such patients are often prepared to accept that their emotional state and social stresses contribute to their painful conditions. The percentage of this group of pain syndrome will vary according to the setting where the patient is seen but the evidence suggests that pain is a relatively common symptom in psychiatric disorders most noticeably as a part of an anxiety or mood disorders but also in the realm of a psychotic state. To help in differentiating this important first group, one might look for other features of the assumed psychiatric disorder. In anxiety disorders, irritability, restlessness and other anxiety symptoms are usually apparent. In depressive mood disorders, clinicians might look for a depressed appearance, slowed movements, negative view of self and the world and other features of a depressive disorder. Once such patients feel that they are not going to be rejected or unfavourably judged by the doctor they usually allow the focus to move from the pain complaint to the real psychosocial difficulties. Psychotic conditions presenting with pain complaint are infrequent. In such cases other psychotic symptoms are often present, e.g. a delusional belief or hallucinatory experience related to pain might become clear through proper history-taking and examination. The DSM-III R has endorsed a category which would be best suited to fit in this part of the classification which is adjustment disorder with physical complaints. In this condition, a recent identifiable psychosocial stressor has occurred and the predominant manifestation of the patient’s reaction to this stress is a physical symptom, e.g. aches and pains. A not infrequent example of this condition is seen in pathological grief reaction to loss of a significant person or position where the painful organ seems to symbolize the lost object. This useful category is limited, however, by the DSM-III R criterion of a 3-month time limit between the stress event and the presentation. In identifying cases which belong to this condition, a clue is usually provided by the patient’s marked preoccupation with the stressful event once he is given a chance to talk freely in a suitable setting.

The above mentioned group should be differentiated from a second group of psychogenic pain syndromes in which the patients resist any suggestion of psychological factors being connected to their pain complaint. Their report of pain is not consistent with what is demonstrated in terms of organic pathology and the degree of disability is greater than what would be expected. This group is regarded as manifesting AIB.

**Conscious or unconscious motivations**

The group of AIB is further subdivided into two groups based on whether their motivation to adopt the role of being ill and disabled, e.g. sick role behaviour, is consciously (i.e. the patient is aware of his motives) or unconsciously (i.e. the patient is unaware of his motives) motivated. The group with conscious motivations include malingering and factitious disorders. These two categories in particular have to be applied with great caution since both of them are rare and they are frequently suggested by health care professionals without adequate evidence.

In the DSM-III R the essential feature of malingering is the intentional production of false symptoms motivated by clear external incentives. In factitious disorders, a famous but rare example of which is the hospital addiction Munchausen’s syndrome, the external incentive is lacking and instead evidence might be found of an intra-locus need to maintain the sick role. So in factitious disorders, behaviour that appears under voluntary control is used to pursue goals that are involuntarily adopted.

The second group of AIB are those with predominantly unconscious motivation. This group of disorders are largely subsumed under the category of ‘somatoform disorders’ in the DSM-III R. The essential feature of all somatoform disorders is the unintentional production of physical symptoms without a known organic cause with at least an assumption that the symptoms are linked to psychological factors. Under this category we will discuss conversion disorder, hypochondriasis, somatization disorder and somatoform pain disorder.

**Conversion disorders**

The DSM-III R criteria for this condition include a temporal relationship between a psychosocial stressor . . . and initiation or exacerbation of the symptom’. Furthermore the symptom should not be culturally sanctioned and not limited to pain or sexual functioning.

In technologically advanced societies, the frequency of the classical conversion disorders has decreased, however, pain as a conversion symptom is probably fairly common. Third world countries are quickly developing into modern technological societies and, therefore, there is a possibility that
pain as a conversion symptom is on the increase in such areas.

**Hypochondriasis**

According to the DSM-III R, the patient with this condition is intensely preoccupied with the fear of having, or the belief that he has, a serious disease for at least 6 months. The criteria for this disorder state that the belief should not reach a delusional intensity, which is practically difficult to establish in some cases of pain.

**Somatization disorder**

This DSM-III R category must begin before the age of 30 and persist for several years. Its main features are recurrent and multiple (13) somatic complaints over many years for which medical attention has been sought. When such patients present with a complaint of pain it is usually readily evident that the pain is just one of a plethora of old and new physical complaints.

**Somatoform pain disorder**

The essential feature of this disorder in the DSM-III R is the preoccupation with pain in the absence of adequate physical findings to account for the pain or its intensity.

The above classification is definitely not the ideal one. Many chronic pain syndrome patients do not comfortably fit these categories. In particular the classification of cases into psychogenic and non-psychogenic is too simplistic and in many cases arbitrary. Nevertheless, the above classification is probably the most convenient for clinicians from disciplines other than psychiatry to orient themselves to the complexities involved in chronic pain syndrome cases. However, certain comments need to be added regarding the classification of chronic pain:

- It is inadequate to classify chronic pain syndrome patients on the basis of one factor at a time, e.g. organic or not, psychogenic or not, abnormal illness behaviour displayed or not, etc etc.

- Physical, psychological and sociocultural factors should all be incorporated in any approach to classification or management. The multifactorial nature of chronic pain does not only apply to the patient but also to such issues as availability of service, doctor’s approach and personality and how it interacts with the patient’s complaints.

- The importance of standardizing the method of assessment has become a focus of efforts from many authorities because of the unreliability of the objective assessment of pain by health care professionals.

The Clinical Psychological Evaluation of Patients

Many pain clinics consider psychological evaluation as a standard part of the initial assessment of cases. The common view now is that such evaluation can aid in understanding any persistent pain problem, even in cases with an identifiable organic pathology, e.g. rheumatoid arthritis or cancer. However, that might seem too ideal a situation to hope for. In the UK, for example, although there are over 200 pain clinics, many of these have a very long waiting list of up to 2 years before the patient can be seen. When we consider that the resources available for health services in many areas of the world are probably less than what is available in the UK we can then appreciate that in many parts of the world it is not possible to apply all the available knowledge about management of pain, including the importance of psychological evaluation in every case. So instead of assessing every patient with persistent pain psychologically, an alternative approach is to refer only selected cases for such assessment. In clinical practice, patients are referred for psychological evaluation in the following conditions:

- When the pain seems to affect the patient’s mood and his ability to engage in normal activities and vice versa.
- When the patient exhibits what is considered a maladaptive mode of action by repeatedly seeking invasive investigations and excessively using health care facilities.
- When the patient starts increasing the use of narcotics, anxiolytics or hypnotics and there is a worry of development of drug dependence.

Such selected cases when referred to psychiatrists should receive a thorough assessment. A complete psychological evaluation of cases of CPS usually requires several interviews with the patient and relatives to be completed. In the first interview, the initial questions should focus on the patient’s current subjective distress, his own concept of pain and expectations from treatment. Then enquiries on how the pain has affected the patient’s behaviour and level of activities with references to how the relatives are responding to such pain behaviour and disability. Also the social history and personal history should be completed. In the latter part of the first interview or possibly in the second interview depending on the development of rapport.
between doctor and patient, enquiries are made regarding recent stressful events and psychiatric symptomatology. It is usually valuable to interview the patient and relatives (somebody who is living with the patient on a daily basis) jointly to observe the interaction between them, especially the non-verbal behaviour of the relative whilst the patient is describing his suffering with pain. Signs of lack of interest or exaggerated expression of sympathy should be observed. It is also important to interview the patient and the relative separately since they are more likely to speak freely on some issues when alone, e.g., sexual dysfunction and marital relationship. Such comprehensive psychological evaluation should end up with certain suggestions on types of psychological treatment to be adopted in this particular case.

It will become obvious from what has been explained that a full psychological evaluation is time-consuming; fortunately, such a complete evaluation is not essential in every CPS patient. In most cases the aims of psychological evaluation are to determine the psychological, social and behavioural factors involved in the pain complaint and resulting disability. These aims can to a large degree be achieved through adopting an understanding approach by doctors from all disciplines who should become more educated about pain and its psychological aspects (see later). It has also been suggested that a case-finding psychological instrument could be applied to patients for example the general health questionnaire. This is useful in screening patients for emotional difficulties, however, what might be more appropriate is a battery of tests to measure the degree of contribution from different factors rather than just deciding on the patient being a psychiatric case or not. To that end some self-administered instruments have been used in working with pain patients. Examples of the commonly used instruments are the Illness Behaviour Questionnaire to assess the degree of illness behaviour, Beck Depression Inventory to assess the severity of depressive symptoms and The Symptom Checklist for an overall assessment of psychological symptoms of distress.

Pharmacological and Psychological Therapies in Chronic Pain

Psychotropic medication commonly used in chronic pain

Antidepressant drugs
Patients who have a primary anxiety or mood disorder should be treated with the appropriate medication. Other patients who manifest with feelings of anxiety or depression in response to their painful conditions will probably benefit from antidepressant drugs. Furthermore, there is substantial evidence that antidepressants can relieve pain independent of any antidepressive effect. The relief of pain with tricyclic antidepressants seems to happen at a lower blood level and after a shorter duration than their antidepressive effect. Most of the studies which explore the analgesic effect of antidepressant medication have focused on the tricyclic antidepressants but also other types of antidepressants have been successfully used in the management of pain, including maprotiline, terazodone (new generation antidepressants) and phenelzine (a monoamine oxidase inhibitor). There is little evidence to show that a particular antidepressant is better than others. In selecting an antidepressant to use in chronic painful conditions several factors other than efficacy will have to be considered. The side-effects profile of the drug might be the most important consideration in selecting an antidepressant drug, e.g., a strongly sedative drug like amitriptyline is more suited for the anxious or insomniac patient, or a drug which causes less hypotensive side-effects like maprotiline for the elderly patient. If there is a history that the patient’s pain or psychiatric condition has previously responded to a particular drug that is probably a fairly good reason to try the same drug again. As a last consideration, it is probably good common sense to use drugs which have already proved their efficacy in the specific condition under management rather than try a new one. Table 2 presents suggested psychotropic treatment

<table>
<thead>
<tr>
<th>Chronic pain syndrome</th>
<th>Suggested regimen</th>
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<tbody>
<tr>
<td>Arthritis</td>
<td>Imipramine → clomipramine → add neuroleptic</td>
</tr>
<tr>
<td>Cancer</td>
<td>Clomipramine → add neuroleptic</td>
</tr>
<tr>
<td>Cluster headache</td>
<td>Lithium carbonate → add amitriptyline</td>
</tr>
<tr>
<td>Diabetic neuropathy</td>
<td>Imipramine → amitriptyline → add neuroleptic</td>
</tr>
<tr>
<td>Migraine</td>
<td>Amitriptyline → washout → phenelzine</td>
</tr>
<tr>
<td>Neuralgias</td>
<td>Clomipramine → amitriptyline → add neuroleptic → amitriptyline/anticonvulsant</td>
</tr>
<tr>
<td>Psychologic origin</td>
<td>Doxepin → amitriptyline → washout → phenelzine</td>
</tr>
<tr>
<td>Tension headache</td>
<td>Amitriptyline → doxepin</td>
</tr>
<tr>
<td>Various neurologic</td>
<td>Same as for neuralgias</td>
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</tbody>
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*Initial choice is listed first followed by alternatives to be tried with non-responders (*). Reproduction from Monks (1990).
of specific pain syndromes based on this last point.\textsuperscript{33} It is probably wise to start the drug in a small dose, e.g. 10–25 mg of amitriptyline, then the dose can be increased gradually thereafter which is likely to decrease undesirable side-effects and increase compliance. It is important to note that baseline investigations should be considered which include liver function tests, ECG and laboratory investigations, especially when tricyclics are used in the higher range of therapeutic dose.

**Neuroleptic drugs**

Neuroleptic drugs are indicated for the treatment of delusional pain which appear as a part of a psychotic disorder. They can be used in severe agitation and anxiety due to overwhelming pain if it does not respond to other measures of treatment. In oncology cases neuroleptic drugs are sometimes used for their anti-emetic as well as an analgesic and calming effect. The analgesic effect of neuroleptics were reported more often in patients who showed poor response to other drug therapies.

When the clinician is using neuroleptics, especially drugs with potent antipsychotic effects, the treatment should start with a very small test dose, e.g. haloperidol 1 mg orally to test for the development of side-effects. After starting with the small dose, it should be gradually increased to establish the tolerance level which is lower than troublesome side-effects but adequate to produce the desired action. Baseline investigations are not necessary except if clinically indicated. Neuroleptics and, to a lesser degree, antidepressants, have many side-effects and inexperienced clinicians are advised to refer to an authoritative drug formulary before prescribing them.

There is disagreement regarding the benefits in combining an antidepressant with a neuroleptic drug in terms of pain relief. The general view is that a combination therapy could provide substantial pain relief, often after failures with many other therapies.\textsuperscript{34} More recently, however, some well-controlled clinical trials have failed to show benefits of this combination therapy over antidepressants on their own.\textsuperscript{35} Some suggestions regarding the use of neuroleptic medication in chronic pain syndromes are presented in Table 2.

**Lithium**

Lithium salts have been tried in acute and chronic painful conditions. They seem to have a beneficial effect in cases of cluster headaches. However, their efficacy for general use in chronic painful conditions is not well-established. Other factors which limit the use of lithium are its serious toxicity and side-effects.

**Benzodiazepines**

The benzodiazepines have been used for the treatment of acute pain, especially that of myocardial infarction, with obvious benefits. Their use in chronic pain for anxiety symptoms, insomnia and agitation related to intolerable pain, is justifiable for periods of 2–4 weeks. The recent increased awareness of the real potential for habituation on these drugs should be a main concern for clinicians using them. It must be noted that even studies which showed benzodiazepines to have an analgesic effect have reported a decrease or even reverse of that effect after 4–6 weeks. It is advisable, therefore, that the use of benzodiazepines in the management of chronic painful conditions should be limited to a very short-term plan of management.

**Psychological therapies commonly used in chronic pain**

All psychological interventions are directed at brain processes or the interface between the individual and the environment and are, therefore, exerting their action through interference with perception of pain, altering of the meaning of the pain, alteration of the effect associated with the pain and/or modification of pain behaviour or pain expression.\textsuperscript{36} Many practitioners schooled in the rigid medical model of illness\textsuperscript{37} would consider the identification of psychological factors as an indication for abandoning the patient and referring him to the psychiatrists. While that might be suitable for the group of patients who have a primary formal psychiatric disorder, it is unsuitable for the majority of cases. The modern approach to management of chronic pain is essentially multi-disciplinary and in most cases includes psychological techniques and therapies as an integral part of the range of treatment modalities they offer. Practically speaking, the choice of a particular psychological therapy for a case of chronic pain depends on both the nature of each case and the available resources including psychotherapeutic skills of practitioners in the team. In the next part of this article, major approaches to the psychological management of chronic pain will be summarized.

**Behavioural therapy**

The contingency management techniques of chronic pain problems are based on behavioural
principles. They address the objective kind of behaviour that can be observed and measured. Efforts are made to alter the reinforcement trends which are maintaining the illness behaviour and to shape the patient's responses into a more positive fashion. Typically this contingency management approach has been employed in inpatient settings. However, the same approach can be applied in outpatient settings, particularly if the patient's spouse or a significant relative is able to participate in the implementation of the programme. In this method, the patient is helped to set weekly targets in terms of activity and exercises which they carry out at home. The achievements are assessed and reinforced both to the patient and the relative in weekly sessions.

Cognitive behavioural approach
The cognitive behavioural approach employs the same behavioural principles as contingency management but with an added component from cognitive psychology. Therapy is directed at correcting the negative cognitive distortions which are related to the patient's beliefs and attitudes about themselves, their physical capabilities and their roles as sick people in society. Patients are trained to monitor and to deal with their false assumptions by repeatedly and gradually challenging them. See Turk et al. for a review of this method.

Relaxation training
Relaxation training is often an element of cognitive behavioural therapy and other psychological approaches. Relaxation training on its own can probably be of benefit for chronic pain patients. It helps in reducing their anxiety, increases their sense of self-control, helps induce sleep and distracts their thoughts from concentrating on distressing symptoms. It has the obvious advantage of being very cost-effective, requiring no special equipment like biofeedback techniques and can be performed almost in any setting. After training the patient on relaxation techniques the exercise should be repeated at home on a regular or irregular basis.

Biofeedback EMG training
Biofeedback EMG training has also been used with and without relaxation to reduce muscle tension and to enhance coping with pain. This technique not only requires expensive instruments but these instruments must be present in a suitable setting and in adequate numbers to allow patients ample time for training to master the technique.

Psychodynamic psychotherapy
Psychodynamic, insight oriented, therapy is probably only appropriate in a small number of cases of chronic pain syndromes. In these cases the aim of the therapy is not primarily to relieve the pain but to deal with the psychodynamic conflict causing it.

Supportive psychotherapy
Supportive psychotherapy is hardly a separate technique since it is probably a feature of every good medical interview. The doctor dealing with the physical aspects of the pain is the best suited to provide emotional support, encouragement, allow ventilation of frustration and introduce positive suggestions regarding life problems related to the condition he is treating. It has been shown that psychiatrists can encourage physicians to provide more appropriate outpatient care by giving them guidance on how to manage patients. Such guidance has been lucidly listed and discussed by Feinmann (see Table 3).

Group therapy
The group format as a vehicle to deliver other psychotherapeutic techniques has some role to play in the management of chronic pain. This approach typically takes place in an outpatient setting. Examples of using the cognitive behavioural technique within a group format are available in the literature. The group usually meets every week for 1–3 h. At each session the group will perform several activities, e.g. discuss pain problems, set new goals of activity and possibly practise some physiotherapy exercises. The group in this way capitalizes on the interpersonal learning and encouragement which is not available in individual therapy.

No one psychological method of treatment can possibly address the full spectrum of therapeutic needs of chronic pain patients. A variety of psychotherapeutic methods ought to be available. This will allow the needs of each patient to be considered individually.

<table>
<thead>
<tr>
<th>Advice to physicians on the management of CPS</th>
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<tr>
<td>1 Remember that chronic pain is chronic, so do not expect too much symptom relief</td>
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<tr>
<td>2 See patients regularly and a family member intermittently</td>
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<td>3 Take symptoms seriously</td>
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<tr>
<td>4 Enquire about degree of disability</td>
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<td>5 Examine patients physically</td>
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<td>6 Talk to your patients</td>
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<tr>
<td>7 Encourage the patient to increase the range of his activities</td>
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<tr>
<td>8 Do not say 'it is all in your mind'.</td>
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</table>

Observations on Local Cultural Factors Affecting Chronic Pain Development and Management

There are major difficulties in assessing fields of study and management of pain in Third World countries. First, there is a major lack of well-documented research into this area. Another reason for the difficulty is the dynamic nature of CPS which makes it sensitive to changes in many variables including health service availability, patient education and awareness of health issues and the pace of social change generally. All of these aforementioned influences are undergoing fast changes in developing countries. This might mean that what might be true about chronic pain population at one time does not necessarily apply at a later time, even within the same locality. This state of affairs is obviously different from the situation in Western countries where such changes have come to a steady slow rate. So with the above limitations in mind, the following will give a brief summary of the experience in Saudi Arabia with CPS patients.

Understanding chronic pain syndromes

Many clinicians working in this area of the world would consider that the majority of cases with chronic pain syndrome would be best understood by the utilization of the concept of abnormal illness behaviour. Local factors which might have a bearing on the development of abnormal illness behaviour include:

1. The diminished role of the family practitioners has led to the excessive use of speciality services. By the time the patient arrives at the psychiatric clinic he usually has been through several specialist clinics and has received inadequate piecemeal reassurance from each specialist. Locally speaking, the term ‘doctor shopping’ is sometimes used to describe the tendency of some patients to consult many specialists from the same or different disciplines. This point is important, especially in developing countries which still have a chance to shape the provisions of their health services. ‘Doctor shopping’ phenomena should be carefully studied in different developing countries to reach a more cost-effective and beneficial way of providing help to patients.

2. The Saudi patient is usually cautious in giving his full trust to the doctor. This is usually evident by the common observation that local patients prefer not to volunteer certain pieces of information, known to them to be of importance, except when the doctor asks about such information specifically. In a way they are testing the doctor to see how genuine and efficient are his efforts in searching for the cause of their misery. This reflects the importance of performing a thorough assessment of the local CPS patient since this will probably help in building a trusting relationship with him.

3. The prevalence of extended family links and ties ensures that the sick person will receive almost unlimited help, care and comfort.

On the intra-personal level, the local experience is consistent with Western views that depression and low self-esteem are prominent features in CPS. The local patient, however, does not usually have strong underlying guilt feelings like his Western counterpart. This is consistent with the fact that guilt feelings are generally less common than in the Western cultures, even in clear-cut depressive disorders.

On the inter-personal level, the relatives of the local CPS patient rarely express resentment or angry feelings towards him, even in private. That could be explained by an inhibitory cultural effect on the expression of resentment as suggested earlier. However, another explanation for the marked tolerance seen in relatives in this part of the world might be due to the presence of a good and cohesive social network which provides active support for the patient and his family.

Primary psychiatric disorders presenting with a chronic pain complaint

Chronic anxiety disorders and mild to moderate depressive disorders are the most common categories in local CPS cases seen in psychiatric clinics. Patients with psychotic conditions frequently present with somatic complaints, but these are uncommonly in the form of chronic pain. The same applies to conversion disorder which is more common in Eastern countries, i.e. it is uncommon for a patient with a conversion disorder proper to present with chronic pain. It must be noted, however, that chronic pain could present as a conversion symptom in the realm of several other psychiatric disorders but the diagnosis in these cases is not conversion disorder but that of the primary condition.

Use of psychotrophic medication

No particular trend has appeared which is different from the Western experience. One relevant point is that there are some suggestions that depressive symptoms in the local patients
respond to a lower blood level of antidepressants than in their Western counterparts and, therefore, local CPS patients might need smaller doses of antidepressants also.

Use of psychological therapies

The local patient seems to be more suited and responds better to a cognitive behavioural approach rather than an analytical or a low-key supportive type of therapy. This is usually performed on an outpatient basis with as much active participation from the spouse or a close relative as possible. Relaxation training is a very cost-effective type of therapy which has good beneficial effects although a certain group of patients might find it difficult to grasp the purpose or the technique of this exercise, even after repeated therapist-guided sessions.

The clinical psychological evaluation of patients

It is probably unrealistic to expect that developing countries will have enough expertise and resources to allow full psychological evaluation of all patients with chronic pain syndrome. This might remain a long-term aim but for the near future some practical suggestions could be made: that the referral for psychological evaluation should be limited to those who will benefit most from such referral and in particular it is patients with primary psychiatric disorders who should be referred. For the majority of patients, however, a supportive and understanding attitude by the treating doctor following the guidelines in Table 3 and with the backup of a psychiatrist to provide further advice and support, is probably the most feasible option in the light of available resources. The situation could be significantly helped by the development of locally validated versions of specific psychological tools useful in the assessment of CPS patients.

Final Recommendations

This article reviews the most important of the psychological aspects of chronic pain, highlighting the contributions made by psychiatrists and allied disciplines. More research is needed in this area since many of its aspects are still unclear. However, in the light of the discussion contained in this article one can reach some final conclusions and recommendations. These are:

1. The conventional classification of patients into psychogenic and non-psychogenic is inadequate and stigmatizes the patients since the majority will not comfortably fit completely into one category or the other.
2. Physical, psychological and socioeconomic aspects should be assessed in all CPS patients. In particular, it is important to ascertain the meaning of pain and disability to the patient and his family and how they interact with the physical complaint.
3. Including a member of the family in the assessment and, possibly, management of CPS cases can be very beneficial.
4. Aspects of psychological assessment which seem to be of particular importance are: patient’s level of distress, his beliefs about pain and treatment, and the degree of illness behaviour. Such aspects should be assessed by every physician involved with CPS management. Psychiatric referrals should be used in selected cases only.
5. Physical aspects are better standardized for example through using simple itemized examination and history sheets to ensure a thorough assessment of patients and to minimize the effects of the doctor’s bias.
6. Providing a lucid explanation to the patient about his symptoms and reassuring him through appropriate physical examination are an integral part of proper management of a patient with a painful complaint.
7. It is too early to reach definite conclusions on local issues but it is an area for locally based research efforts because the psychosocial influences are clearly different from Western countries.

References


