Assess the Person, Not Just the Pain

Pain accounts for over 70 million office visits each year to physicians in the United States. Some visits follow trauma, infection, or acute illness; others relate to recurrent acute pain (eg, migraine, back pain, sickle cell crisis); many are due to chronic pain conditions (eg, osteoarthritis, neuropathies); while still others may be associated with progressive diseases (eg, cancer, AIDS). In all types of pain, accurate assessment is required to appropriately treat the patient. At first, this may seem an easy task: just ask the patient, “How much does it hurt?” Unfortunately, the problem is not this simple because there is no direct relationship between physical pathology and the intensity of pain. The patient’s subjective experience may be difficult to communicate because patient and provider have different languages, experiences, expectations, and frames of reference. Marked differences in severity, quality, and impact of their pain are reported by patients attempting to describe what appears to be the same phenomenon.

Pain is a complex, subjective, perceptual phenomenon with a number of dimensions—intensity, quality, time course, impact, and personal meaning—that are uniquely experienced by each individual and, thus, can only be assessed indirectly. Pain is a subjective experience and there is no way to objectively quantify it. Consequently, assessment of a patient’s pain depends on the patient’s overt communication, both verbal and behavioral. Given pain’s complexity, one must assess not only its somatic (sensory) component but also patients’ moods, attitudes, coping efforts, resources, responses of family members, and the impact of pain on their lives.

The extent of the evaluation will vary with specific circumstances. For example, in acute clinical situations, greater attention must be given to the sensory components of pain intensity, location, and
temporal characteristics. For patients with recurrent and chronic pain, more attention may be devoted to a range of psychosocial and behavioral factors. In such cases, health care providers may be unable to identify the actual physical basis for the patient's reported pain. This does not mean there is no physical basis for the pain. Regardless of whether an organic basis for the pain can be identified or whether psychosocial problems preceded or resulted from the pain, the evaluation process can help determine how biomedical, psychological, and social factors interact to influence the nature, severity, and persistence of pain and disability.

Three central questions should guide assessment of people who report pain.2

1. What is the extent of the patient's disease or injury (physical impairment)?
2. What is the magnitude of the illness? That is, to what extent is the patient suffering, disabled, and unable to enjoy usual activities?
3. Does the individual's behavior seem appropriate to the disease or injury? Is there any evidence symptoms are amplified for psychological or social reasons or purposes?

Due to the constraints on space, the remainder of this issue will only consider adults and will focus on questions two and three since there is an extensive literature that deals with physical, radiographic, and laboratory methods to answer the first question.

Self-report Measurement of Pain

Patients are often asked to quantify their pain by providing a single, general rating of pain: "Is your usual level of pain 'mild,' 'moderate,' or 'severe'?” or "Rate your typical pain from 0 (no pain) to 10 (the worst pain you can imagine).” In these instances, the patient is being asked to quantitate and average his or her pain retrospectively. Pain, however, is likely to vary over time and with different activities. In addition, ratings of usual pain tend to use current pain as their reference point. Thus, asking about usual or typical pain may not accurately reflect pain severity over time. More valid information may be obtained by asking about the current level of pain.

There are a number of simple methods that can be used to evaluate current pain intensity: numeric scales, descriptive rating scales, visual analog scales, and box scales (Figure 1).

Melzack and Casey suggested that pain has three components: sensory-discriminative, motivational-affective, and cognitive-evaluative.3 The scales in Figure 1 address only the sensory intensity component. Similar methods can be used to evaluate the motivational-affective components of pain by using suitable anchors and modifying the instructions appropriately. For example, the anchors on the scales contained in Figure 1 may be altered so that zero means no distress or no unpleasantness and ten refers to extreme or severe distress, or extreme unpleasantness.

One of the most frequently used pain assessment instruments is the McGill Pain Questionnaire (MPQ).4 This instrument has three parts including a descriptive scale (Present Pain Intensity) with numbers assigned to each of five adjectives: 1 (mild), 2 (discomforting), 3 (distressing), 4 (horrible), and 5 (excruciating). A second part includes the front and back of a drawing of a human figure on which patients indicate the location of their pain. The third part is a pain rating index based on patient selection of adjectives from 20 categories reflecting sensory, affective, and cognitive components of pain. The MPQ provides a great deal of information but takes much longer to complete than the scales presented in Figure 1. A short form of the scale consisting of 15 adjectives that represent sensory and affective dimensions of pain, each rated from 0 (none) to 3 (severe), has been developed.5

Functional Activities

Traditional physical and laboratory measures are not direct measures of symptoms or function, only proxies. Commonly used physical tests of muscle strength and range of motion correlate poorly with actual patient behavior.6 Similarly, radiographic indicators are only weak predictors of long-term functional capacity.7 In contrast, self-report functional status instruments seek to quantify symptoms, function, and behavior more directly.8

A number of self-report measures have been designed to assess individuals' reports of ability to engage in functional activities such as to walk up stairs, sit for a specific time, lift specific weights, perform activities of daily living, as well as measure the severity of pain during these activities. Although the validity of such self-reports of ability to perform functional activities is often questioned, studies have found good correspondence among self-reports, disease characteristics, physicians' or physical therapists' ratings of functional abilities, and objective functional performance.9,10

Self-report instruments are economical and efficient. They enable the assessment of a wide range of relevant behaviors and permit social and mental functions to be evaluated. Commonly used functional assessment scales are the Roland-Morris Disability Scale,11 the Functional Status Index,10 and the Oswestry Disability Scale.12 A more extensive instrument, the Sickness Impact Profile, includes over 150 questions to examine a range of physical activities and psychological features.13
Overt Expressions of Pain

Patients display a broad range of reactions—some controllable, others not—that are indicative of pain, distress, and suffering. For example, autonomic response activity such as rapid heart rate or perspiration may indicate the presence of acute pain. Over time, however, these physiological signs habituate and their absence cannot rule out pain.

Other overt manifestations of pain have been labeled pain behaviors (see Table 1). Pain behaviors and self-report of pain are significantly correlated.

In addition to their association with pain, pain behaviors are significant in their own right as they are observable and elicit responses from others. Various reinforcements (eg, attention, avoidance of undesirable activities, financial compensation) may maintain these behaviors. Pain behaviors have been shown to be important in chronic pain patients.

It is important not to mistake pain behaviors as synonymous with malingering. Malingering is the conscious and purposeful faking of a symptom such as pain for some gain, usually financial. In the case of pain behaviors, there is no suggestion of conscious deception but rather that pain behaviors are unintended and result either from a nociceptive input or environmental reinforcement. The patient who displays pain behaviors is typically not aware of them nor is he or she consciously motivated to obtain positive reinforcement from the behaviors. There is little support for the contention that outright faking of pain for financial gain is widespread.

One way to assess pain behaviors is to have patients keep diaries of their activities. Commonly, patients record the amount of time or the number of times they perform specific behaviors such as reclining, sitting, standing, walking, and so forth. These activity diaries have a good deal of overlap with functional activities described above.

Table 1 contains a sample of items used to quantify pain behaviors. Recently, several investigators have used the Pain Behavior Checklist (based on information in Tables 2 and 3) modified as a self-report and have found a significant association between self-reports and behavioral observations. These behavioral observation scales can also be used by patients' family members.

<table>
<thead>
<tr>
<th>SCREENING QUESTIONS (Part I)</th>
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<tbody>
<tr>
<td>Clinical Issues</td>
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<tr>
<td>Does the patient:</td>
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<tr>
<td>☐ Have pain that has persisted for 3 months or longer</td>
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<tr>
<td>• Despite appropriate interventions?</td>
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<tr>
<td>• In the absence of progressive disease?</td>
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<tr>
<td>☐ Have unrealistic expectations</td>
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<tr>
<td>• Of health care provider?</td>
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<tr>
<td>• Of treatment offered?</td>
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<tr>
<td>☐ Complain about previous health care providers?</td>
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<tr>
<td>☐ Have a history of substance abuse?</td>
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<tr>
<td>☐ Display pain behaviors?</td>
</tr>
<tr>
<td>• Grimacing</td>
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<tr>
<td>• Rigid or guarded movement</td>
</tr>
</tbody>
</table>

| Table 2 |

Health care providers can use observation to quantify various pain behaviors and factors that increase or decrease them. The patient can be observed in the waiting room, while being interviewed, or during a structured series of tasks.

Psychological Contributions to Pain

Health professionals have long considered pain as a symptom closely tied to somatic disease. Yet, although physical factors trigger the initial report of pain, psychosocial and behavioral factors may worsen and perpetuate pain and disability. Pain, suffering, and disability each depend upon a range of cognitive and affective factors.

A large number of instruments have been developed to assess patients' coping behaviors, attitudes, psychological distress, and the impact of pain on their lives. These measures have been reviewed and critiqued recently.

Often, there are insufficient objective physical findings to explain the patient's complaints of pain. The difficult task for the health care provider is to evaluate these patients in a comprehensive fashion. When pain persists beyond the expected period for healing of an injury, or is associated with progressive disease, it may be appropriate to refer patients for specialized assessment and evaluation.

Generally, a referral to a pain specialist may be indicated: 1) where disability greatly exceeds what would be expected based on physical findings alone, 2) when patients make excessive demands on the health care system such as having tests and treatments when these are not indicated, 3) when patients display significant psychological distress (eg, depression), or 4) when the patient displays aberrant behaviors such as selling his/her own medication or continual nonadherence to the prescribed regimen.
Tables 2 and 3 list questions to consider in patients who report persistent or recurring pain. Positive responses to a few of these questions are not sufficient to prompt a referral for more extensive evaluation but, when five or more answers are “yes”, referral should be considered.

Conclusion

Because of their inherent subjectivity, pain, suffering, and disability are difficult to prove, disprove, or quantify in a totally satisfactory fashion. Response to the question, “How much does it hurt?” is far from simple. The report of pain is influenced by multiple factors such as cultural conditioning, expectations, social contingencies, mood state, perceptions of control, and the like. Physical pathology is only one, albeit a key, contributor to the experience of pain. It is highly unlikely that we will ever be able to evaluate pain without reliance on the individual’s perceptions. The central point to keep in mind is that the patient reporting pain must be evaluated, not just the pain per se.

Dennis C. Turk, Ph.D.
Pain Evaluation and Treatment Institute
University of Pittsburgh School of Medicine

References


The International Association for the Study of Pain (IASP) was founded in 1973 as a non-profit organization to foster and encourage research on pain mechanisms and pain syndromes, and to help improve the management of patients with acute and chronic pain. The Association brings together basic scientists, physicians, dentists, nurses, psychologists, physical therapists, and other health professionals who work in or have an interest in pain research and management.

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