

Letters to the Editor

Role of Psychology in Interventional Pain Management

To the editor:

I am writing regarding two articles in the April 2002 issue.

i. Manchikanti et al (1) "Psychological Status in Chronic Low Back Pain" is in agreement with many previous publications as the authors point out. What is most important is the apparent utility of the P3 test as a tool for rapidly and affordably assessing the chronic pain patient, and perhaps the acute/subacute pain patient. The correlation with MMPI was encouraging in further validating the P3 test to those more familiar with MMPI. I look forward to an article that assesses recent onset radiculopathy patients and follows them through treatment with pre and post treatment P3 testing and correlation to outcome, as one would predict from Von Korff et al's (2) study. The title of the article might have been more accurately reflective of content as "Psychological Status in Chronic Low Back Pain as Assessed by the P3 test; a useful tool for interventional pain physicians."

The method section states that the control group was screened to exclude any subjects with prior psychological history. This will obviously select a skewed population that one would expect to test with close to zero positive results. Yet the chronic lumbar pain patients were not excluded for psychological diagnoses or treatment that predated the onset of their pain, which would be a hard condition to assess. A better control would randomly pick control participants with no lumbar or other chronic pain complaint regardless of psych history. Only one variable should differentiate the two groups - pain vs no pain. There is a prevalence of depression, anxiety and somatization in the general population, as the author also mentions. Those persons should not be excluded from the controls.

The prevalence of depression, anxiety and somatization is higher in chronic pain patients. Some of this is presumed reversible with treatment of the pain. We should not exaggerate the difference from the general population by excluding any control group patients with history of psychological diagnoses or treatment. Improvement in P3 scores post treatment should approximate the general population norm, not zero. If we use a falsely lowered general population standard, our treatment outcomes will

appear falsely poor.

Will such testing help place individuals into different treatment algorithms? Some patients might avoid unnecessary and expensive psychological assessment and treatments in practices that routinely run all patients through both physical and psychological treatment. For those practices that routinely do not include psychological co-treatment, the test may help to early on identify individuals who would be better treated by or along with the psychologist.

Overall, I found the article informative with excellent references. It promotes a less cumbersome way to assess the psychological status of patients. I foresee this could be an important tool for interventional pain practices. Many pain clinics have found the psychology costs outweigh revenue. The P3 may help preserve and promote psychological assessment of chronic pain patients.

ii. In "Do Number of Pain Conditions Influence Emotional status" by Manchikanti et al (3), the same control group comment is valid.

The fact that multiple pain complaints are associated with more anxiety, depression and bodily pre-occupation should surprise no one. Negative factors are logically additive as are positives in any situation, medical or not. In the non-pain medical realm multi-system medical problems are associated with depression and poor outcome. The individual with multiple negative stress factors such as spousal death, job loss and major illness, and those with substance or childhood or sexual abuse are at higher risk of suicide than one without such risk factors (4-7).

Why has nature coupled psychological distress to physical distress? Are the minds of chronically ill patients telling them to be concerned enough to take action? Perhaps, from a Darwinian perspective they realize that they are less capable of competing for survival. Does depression prepare us to wither and die, or to help our predators survive on the infirm to favor evolution of the strong? Is societal permission to suffer, express suffering and to be

dependent on others encouraging the prevalence of anxiety, depression and somatization? Do multiple bodily dysfunctions directly alter the neurotransmitter and receptor balance in an adverse manner? The present study and others like it tell us that psychological dysfunction occurs, but not why.

What works best - to chemically alter mood in order to improve pain, or to alter pain to improve mood? We have all appreciated that both can be effective. How do we use this knowledge to better treat our patients? First, interventionalists must accept that their patients do have psychological comorbidities.

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In Response:

We would like to thank Jasper for his comments on our articles entitled Evaluation of psychological status in chronic low back pain: Comparison with general population (1) and Do number of pain conditions influence emotional status? (2). Jasper raises multiple interesting and thought provoking questions.

One of the questions is why patients with two or more pain complaints should have greater prevalence of mood disorders versus controls? Fishbain also raised the same question (3). There is no clear-cut explanation (4).

The second question Jasper poses relates to the inclusion criteria in both studies for the control group, patients without chronic pain and psychotherapeutic drug therapy or pain or psychopathology. In spite of this, our results showed prevalence of depression in the control population of 5% (1), generalized anxiety disorder in 14%, depressive disorder in 8% of the patients and posttraumatic stress in 2% of the patients (2). The purpose of elimination of patients on psychotherapeutic drug therapy or known psychopathology was to compare apples to apples and oranges to oranges. We have shown that when psychological evaluation and diagnosis includes not only psychodiagnostic evaluation, but interview with the patient by the physician and/or psychologist, as well as consideration of psychotherapeutic drug therapy, the recognition of the incidence emotional disorder of is higher compared to the evaluation by only psychodiagnostic testing (5). In a group of heterogenous population with 372 patients with diagnosis of emotional disorders made by not only psychodiagnostic evaluation but also by patient interview, questionnaires based on DSM-IV-R, and assessment by psychologist, including consideration of psychotherapeutic drug therapy, depression, generalized anxiety disorder, and somatization disorder were seen in 58%, 57%, 33% respectively. In comparison, patients suffering with only low back pain and evaluated by Pain Patient Profile (P3), clinical syndromes were depression 30%, generalized anxiety disorder 20%, and somatization disorder 20% (1). Similarly, evaluation based on pain conditions with MCMI-III evaluation (2), depression was seen in 22% of the patients with one pain condition in 32% of the patients

with two pain conditions, generalized anxiety disorder was seen in 30% of the patients with one pain condition and 54% of the patients with multiple pain conditions and somatization disorder was seen in 18% of the patients with one pain condition and 32% of the patients with multiple pain conditions. This clearly shows that if one should base the diagnosis only on the psychodiagnostic evaluation, emotional status is clearly underestimated. This also highlights the importance of psychological interview and consideration of psychotherapeutic drug therapy in evaluation of these conditions.

The third question posed by Jasper is about the management of these patients. Should these patients be managed differently than patients without psychological disorders? The answer should be yes. No diagnostic test should be performed unless it alters the management. Numerous guidelines emphasize evaluation and management of major depression and generalized anxiety disorder in primary care in patients with or without pain. Thus, it is imperative for an interventional pain physician to look at various aspects of emotional status (6). It will also be interesting, as Jasper has noted to follow the patients not only with surgery, but also following interventional procedures utilizing psychological status as an outcome measure. Multiple evaluations in the past have shown improvement of psychological status following appropriate management of pain in conjunction with improvement in functional status (7-9). Guidelines from the Institute for Clinical Systems Improvement on major depression, panic disorder and generalized anxiety disorder in adults in primary care (10) describe an algorithmic approach for assessment and management of depression and anxiety. They caution that many patients with depression and anxiety do not initially complain of depressed mood or anxiety, and providers need to suspect these diagnoses based on a profile of risk factors and common presentations.

Based on the above guidelines, an algorithmic approach in interventional pain management is presented (Fig. 1). Thus, an interventional pain management physician, by incorporating three simple questions each for depression and anxiety, either in their interview or comprehensive questionnaire could raise the standard of diagnosis. It is well known that a formal psychological interview by a psychologist and formal psychodiagnostic testing is not feasible in interventional pain management settings due to a multitude of reasons. Levy et al (11) described a depression screener to determine positive responses amongst patients with lumbar disc herniations and spinal

stenosis. They showed a positive depression screener response was associated with poorer functional status and quality of life. Screening questions described by Bhagia et al (10) are as follows:

For Depression:

- ◆ Are you often sad, down, blue or teary?
- ◆ Do you have your usual interest in, and look forward to, enjoyable activities?
- ◆ Are you able to have fun or experience joy?

For Anxiety:

- ◆ Are you often worried? (are you a high-strung or nervous person?)
- ◆ Do you ever experience an “out of the blue” attack of fear of losing control, dying, fainting, “going crazy” or severe embarrassment?
- ◆ Are there places (e.g., shopping malls) or situations (e.g., parties) that you avoid or endure?

Three questions by Levy et al (11) for depression screening are as follows:

1. In the past year, have you had 2 weeks or more during which you felt sad, blue, depressed or when you lost all interest in things that you usually cared about or enjoyed?
2. Have you had 2 years or more in your life when you felt depressed or sad most days, even if you felt okay sometimes?
3. Have you felt depressed or sad much of the time in the past year?

It is well known that depression is a treatable cause of pain, suffering, disability and death, yet, depression is underreported. Further, depressed individuals are high utilizers of medical services, and are as functionally impaired as patients with severe chronic medical disorders (12-16). Outcomes of pain management will significantly improve if one pays attention to the existence of emotional disorders and manages them appropriately. It is also of importance to note that depression is common, not only with chronic pain and medical disorders, but also in the general population with a point prevalence of major depression in the general population of 4.5% to 9.3% for women and 2.3% to 4.5% for men (17). Similarly, anxiety disorders are also common in the general population.

The prevalence of generalized anxiety disorder varies

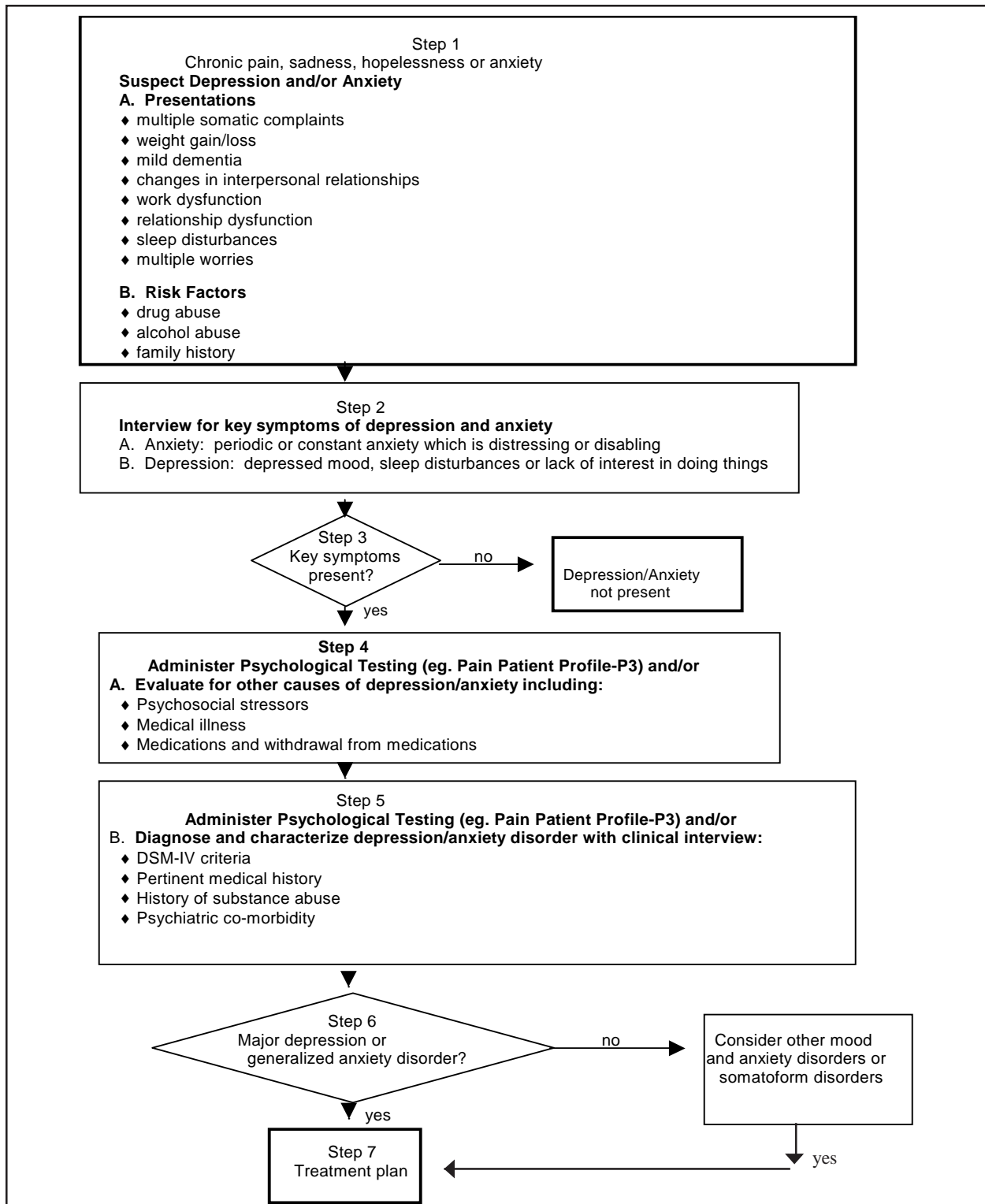


Fig. 1. Algorithmic approach for assessment of depression and generalized anxiety disorder

Adapted and modified from Bhagia et al (10)

from 2.5% to 6.4% and panic disorder in women of 1.4% to 2.9% and in men of 0.4% to 1.7% (17, 18). The prevalence of depression and generalized anxiety disorder are higher in patients suffering with chronic pain. Both pharmacologic and non-pharmacologic interventions may be effective depending on the severity of symptoms. Interventional pain physicians also should be aware of indications to refer a patient to psychiatric professionals for psychotherapy, as well as major psychotherapeutic drug therapy. Thus, supportive therapy by the physician in the interventional pain management setting is not the same as a course of psychotherapy with a mental health professional. Similarly, extensive evaluation by a psychiatrist with psychotherapeutic drug therapy is not the same as management by an interventional pain physician. Thus, physicians should be aware of these facts and consider early referral for psychotherapy or to a psychiatrist if psychological and psychosocial issues are prominent and/or patient requests it.

Finally, Jasper poses a question, what works best to chemically alter mood in order to improve pain, or to alter pain to improve mood? While altering the mood may improve pain in a small number of patients but insignificantly, improving the pain will alter the mood significantly. In addition, a combination is the optimum way to treat the patient with a true biopsychosocial approach.

In summary, as Jasper states, interventionalists first and foremost must accept that their patients do have psychological comorbidities and need treatment for the same. We should always remember the dictum, never treat a patient's depression and anxiety with interventional techniques.

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