

To screen or not to screen for psychological distress in patients scheduled for spinal surgery



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The case 'against' – Surgical Point of View by Emre Acaroglu MD Ankara Spine Center (Ankara, Turkey)

Should we screen all patients scheduled to undergo spinal surgery for axial spinal pain for psychological distress? Well, it may be a good idea. After all, we know that there is a strong psychological distress factor in regard to pain perception in this group of patients. On the other hand, before advocating and adapting such an approach, we may also want to see positive responses to several questions, listed and discussed below:

1. Is screening accurate?
2. Is it predictive (of outcomes)?
3. Can subsequent intervention change treatment/results?
4. Is it cost-effective?

Accuracy of screening:

Recent literature on the accuracy of psychological tests as screening tools suggest that the sensitivity, specificity, positive predictive value and negative predictive value ranges of these tests may be quite diverse; ranging from 24% to 93% for sensitivity, from 44% to 91% for specificity, from 28% to 94% for positive predictive value, and from 35% to 100% for negative predictive value, suggesting a fairly high rate of false positive results (Carnes et al 2006, Epker and Block 2001, Kang et al 2015, Lavigne et al 2016). In fact, a recent study has demonstrated that positive values above the established thresholds were 45% for anxiety, 41% for depression, 29% for catastrophizing and 56% for kinesiophobia in patients seen in an outpatient back clinic (Wenzel et al 2015). Based on these, we may want to have certain doubts on accuracy, at least now.

Predictivity:

Many studies have demonstrated that psychological screening positive for anxiety, depression or other conditions may be a strong predictor of worse outcomes following surgery (e.g., Marek et al 2017, Vialle et al 2015, Marek et al 2015). As an example, Theologis and co-workers (2016), on an adult deformity population screened by DRAM's Modified Somatic Perceptions Questionnaire (MSPQ), have demonstrated that the rate of significant improvement in the 1st MSPQ quintile was 77% vs 21% in the 5th quintile. On the other hand, we may not need complicated screening tests to this end; a study by Carreon et al (2016) suggest that the 'Have you felt downhearted and depressed' item in the SF36 was the single most important factor for ODI and EQ-5D at the 1st year. Further, there is a chance that psychological disturbance may be affected by pain (Fishbain et al 2006) and may improve by the alleviation of pain (Havakesian and Mannion 2013).

Effectiveness:

In this regard, available literature suggests that patients undergoing treatment for psychological disturbances do benefit from it, at least in the short term. Two examples may be studies by Reichart and co-workers (2011) and Abbott and co-workers (2010) both demonstrating improvements in some psychological and pain parameters at the 1st year.

Cost-effectiveness:

Cost-effectiveness is a very subjective matter. One, the relative value of money in different regions and communities differs; two, it is very difficult to attain a monetary value to improvement in health. But still, there is one randomized prospective study that evaluated the cost effectiveness of cognitive behavioural treatment (CBT) on patients undergoing lumbar spinal fusion (Rolving et al 2016). Their results suggest that ODI improvement was better with CBT at 3rd and 6th months but not at 1 year and that there is a 70% chance that CBT is cost-effective if we accept to pay 40,000 euros per additional QALY and 90% chance if we accept to pay 10,000 euros for an additional 15 point ODI improvement.

Conclusion:

We may conclude that there may be merit in psychological testing and subsequent intervention for improved short term treatment results. On the other hand, there exists a considerable risk for false positive results and, a chance that informal assessment methods may be as effective. Based on these, I'll repeat myself; there may be a merit in this, but we probably are not there yet.

The case 'for' - Non-Surgical Point of View by Christine Cedraschi, PhD, Psychologist, Senior Lecturer (Geneva University, Switzerland)

Should we screen all patients scheduled to undergo spinal surgery for axial spinal pain for psychological distress? I think Emre Acaroglu made a good case explaining why it may not be always easy and appropriate to do so.

The question may then be what risk screening can offer and what it cannot offer. Screening can identify people who are likely to have different sorts of outcome and should therefore be treated/managed in different ways. If the screening captures potentially modifiable risk factors, it may help identify treatment targets (as in stratified care). However, screening is not a comprehensive psychological evaluation but may indicate that one is required (Hill et al, 2008; Hill et al, 2011). This is of importance when it comes to prevent pain and associated activity limitations within the context of activity-based approaches where resumption of normal activities is emphasised in spite of pain. Such a patient-centred approach places the management of back pain patients in the continuum of physical and psychosocial factors and is all the more important as it has been shown that the impact of back pain on an individuals' daily life can be influenced by psychological, social and environmental factors. Many of these factors may be susceptible to be modified through an intervention. Clinical decision making then becomes a key process in designing a patient-centred intervention that considers individual differences (Main & George, 2011).

Identifying patients' expectations and defining meaningful outcomes are essential parts of such a patient-centred approach. A decrease in pain is a highly expected outcome; however, the focus of treatment may be the restoration or the improvement of function rather than the cure of pain. Thus, other outcomes need to be elicited allowing setting goals that are both realistic and meaningful to the patient. This requires a shared-decision making approach where the clinical negotiation is a central tool. Clinical negotiation involves a shift from a situation where the therapist « prescribes » and the patient « complies ».

Defining meaningful outcomes and coming up with a shared decision necessitates investigating issues such as the patient's feelings regarding the proposed type of intervention; the patient's expectations regarding the likely benefits but also the patient's concerns about the possible risks.

Responses to these questions are needed to achieve shared decision making, integrating relevant scientific evidence, as well as the perspective of individual patients regarding the proposed options; this may in turn allow for possibly reducing overuse of interventions with minimal or no expected benefits and underuse of beneficial interventions (Stacey et al, 2011; Stiggelbout et al, BMJ 2012; Politi et al, BMJ 2013; Salmi et al, submitted).

Definition of goals is thus an important challenge. Indeed, the importance and the meaning of the results may be different for each stakeholder. Differences or disagreements between the patient's expectations and those of his wife, children, workmates, but also his/her therapist(s) can have a negative impact on treatment outcomes, even if the patient reaches his/her goals.

Thus, a clear statement of goals from all viewpoints at the onset of treatment is crucial along with the definition of mutually acceptable outcomes that need to be negotiated with the patient for the best results, so as to « empower » the patient (Mannion & Elfering 2006; Havakeshian & Mannion, 2013; Froud et al, 2014; Herndon et al, 2015).

Screening does not mean use of cumbersome instruments; brief questionnaires can be used, e.g. the COMI addressing the main outcomes of importance to patients with LBP (pain, function, symptom-specific well-being, QoL, disability) and designed for use in the clinical routine, quality management and research (Deyo et al, 1998; Mannion et al, 2009), along with the clinical interview that remains at the core of the patient-therapist encounter.

Within this context, the question may then be to know whether the patient should be provided with psychological management before/along with the treatment to work on his negative beliefs and distress, to offer him support, reassurance and adequate information – and to discuss expectations that can be both realistic and meaningful.

Summary from Moderator Margareta Nordin Dr. Med. Sci. Romorantin Lanthenay, France:



We focused this debate on "To Screen or not Screen for Psychological Distress in Patients Scheduled for Spinal Surgery" a "hot" topic in current clinical treatment to obtain the best clinical results for the patient undergoing spinal surgery. The eminent debaters presented their view and a lively discussion followed. In the resumes from Dr. Acaroglu a spine surgeon and Dr. Cedraschi a psychologist there were many points of agreement but also some disagreement. The audience voted before and after the discussion and the consensus were that screening for psychological distress before spinal surgery can be very helpful in spine patients in distress. The patients need to be carefully selected, screening is not necessary for every patient undergoing spinal surgery, however if psychological distress is present i.e. depression, anxiety, catastrophizing, fear or other psychological symptoms are present, these symptoms are treatable and modifiable. If modified, the spine surgical results are likely to be improved.

The audience determined that screening is helpful in selected patients with an increased voting for screening (always or often) by about 24 % and by the voters against screening (sometimes or never screened) cut by about 30%.

A warm thanks to the debaters and the audience for a dynamic interaction and helpful recommendations for best outcomes for the patient undergoing spinal surgery.

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