

Advertisement



Published on *SpineUniverse* (<https://www.spineuniverse.com>)

Which Patients Undergo Pre-Surgical Psychological Evaluation Before Spine Surgery?

Highlight From the 33rd Annual Meeting of the North American Spine Society (NASS 2018)

Written by [Kristin Della Volpe](#) [1]; Reviewed by [Isador H. Lieberman, MD, MBA, FRCSC](#) [2]
Peer Reviewed

Nearly all patients referred for major spinal reconstruction surgery should undergo pre-surgical psychological evaluation, said [Isador H. Lieberman, MD, MBA, FRCSC](#) [2], at NASS 2018 held September 26-29 in Los Angeles, CA. Pre-surgical psychological evaluation is a valuable diagnostic and prognostic assessment that improves overall outcome and patient satisfaction, reduces costs, limits the likelihood of additional unnecessary surgery, and protects against litigation, Dr. Lieberman explained.

Dr. Lieberman highlighted how pre-surgical psychological evaluation may improve spine surgeons' understanding of patients prior to intervention, allowing for better individualization of treatment based on both physiologic/biomechanical and psychosocial aspects of surgery.

[Click to enlarge](#)

[3]

Psychological evaluation may improve spine surgeons' understanding of patients prior to intervention. Photo Credit: 123RF.com.


Psychosocial Risk Factors for Poor Outcomes in Spine Surgery

Psychological and psychosocial factors can strongly influence the effectiveness of spine surgery, Dr. Lieberman explained. One of the main goals of pre-surgical psychological evaluation in spine surgery is to delineate psychosocial risk factors for poor surgical results (Table).

Table. Psychosocial Risk Factors in Adult Spine Surgery Candidates

Risk Factor	Effect
Depression/demoralization	Lower perception of improvement, and lack of motivation to get better
Anxiety	Increases pain awareness and muscle tension
Anger	May be directed at physicians, self, or family members
Fear/avoidance of pain and injury	Reduces functional ability
Self-image/self-esteem	Body image often contributes to lower esteem
Stress	High stress levels affect healing Maladaptive coping strategies (eg, drugs or alcohol abuse)
Substance abuse history	Affects post-operative opioid prescription management
Chronic psychiatric problems	May be worsened by pain and post-op recovery
History of physical/sexual abuse	Surgery can provoke feelings of victimization
Disincentives for recovery	Financial and interpersonal factors adversely impact recovery

Source: Lieberman, et al.

 Click to enlarge

[4]

Table. Psychosocial Risk Factors in Adult Spine Surgery Candidates.

In addition, “We want to identify what psychological strengths these patients have, so that we can help them, coach them, encourage them to draw on those strengths,” he said. These strengths include health engagement, resilience, pain self-management, and social support.

Other key goals of pre-surgical psychiatric evaluation in spine surgery are to define patient expectations, assess patients’ knowledge/education about their spine condition and surgical intervention, encourage patient engagement, and provide treatment recommendations (eg, recommend medications to treat anxiety or behavioral treatments).

Assessment of Patient Expectations

Identifying patient expectations from spine surgery is essential, as many patients expect to be 100% pain free after surgery, Dr. Lieberman explained. Thus, Dr. Lieberman educates patients that while their pain level may improve following spine surgery, most patients will not be completely pain free.

In addition, issues related to post-surgical body image are important expectation to manage, particularly among patients undergoing spinal deformity surgery. Expectations regarding medication management post-surgery also are important to ensure that there is a clear plan in place. Furthermore, coaching patients regarding return to work and physical activity is important to encourage patients to build slowly rather than trying to jump back in all at once, Dr. Lieberman noted.

Patient Engagement in Spine Surgery

In addition to assessing patient knowledge and education, Dr. Lieberman emphasized the need to encourage patient engagement in treatment. “We want them to do research, ask questions, and be prepared,” he said.

Also important is to teach patients “techniques to improve the outcome of spine surgery, such as pacing, dealing with various setbacks, focusing on gains and not losses, and accepting help and support from others,” Dr. Lieberman said. Patients should view surgery as a foundation for overall health, he added.

Treatment Recommendations

Pre-operative treatments that may improve outcomes from spine surgery include antidepressants and cognitive-behavioral therapy for patients with anxiety and/or depression, smoking cessation, opioid reduction, and weight loss.

If patients are at high risk for poor outcomes, according to the pre-surgical psychological evaluation, alternatives to surgery may be recommended, including chronic pain management programs and self-help interventions.

Who Should Receive Pre-surgical Psychological Evaluation Before Spine Surgery?

Pre-surgical psychological evaluation can be helpful in patients who are depressed, anxious, angry, or have sleep disturbances, symptoms that Dr. Lieberman said are found in nearly all the patients undergoing spinal deformity surgery in his practice. The evaluation also can help identify inappropriate patient expectations regarding post-surgical functioning.

In addition, pre-surgical psychological evaluation is beneficial for patients expressing negative attitudes (eg, that they cannot be helped), with escalating or high-dose opioid use, history of noncompliance, history of psychiatric disorders or substance abuse, or lack of family support.

To ease any fears regarding psychiatric evaluation, it is important to educate patients that the examination is standard procedure and “is part of the package preparing them for surgery,” Dr. Lieberman said. He tells patients, “This evaluation allows me and my team to make the most informed recommendation and you to make the most informed decision about your treatment. This evaluation allows us to discuss concerns and expectations, and provides advice to improve treatment results.” Importantly, he informs patients that the evaluation is not something that they must “pass” to have surgery.

Case Study

Dr. Lieberman discussed a case involving a 56-year-old woman with degenerative scoliosis causing back and leg pain who failed to respond to conservative treatments. The patient’s pre-surgical psychological evaluation indicated that she believed she could not be helped and tended to brood and ruminate about her problems. Her Minnesota Multiphasic Personality Inventory score showed elevated sensitivity to pain and feelings of helplessness, but her issues were not so intense that surgery should be avoided. Based on this evaluation, Dr. Lieberman determined that spine surgery outcomes should focus on functional gains rather than on pain reduction.

At one-year post-surgery, marked improvement in the patient’s alignment was found and the surgical team was excited about the surgery success. However, the patient did not perceive improvement in terms of patient-reported outcome measures. Leg and back pain scores showed minimal improvement (ie, 0.5 to 1 point) and her Oswestry Disability Index score showed no change.

In contrast, gait analysis showed dramatic improvement in her cadence as well as improvements in walking time, stride time, step time, and stride/step length.

By knowing that this patient has a negative attitude and tends to brood/ruminate, Dr. Lieberman was able to coach her through post-operative recovery to help the patient change her attitude and resume activities of daily living.

“The consequences of these perceptions, or the lack of predictable improvement after spine surgery, is that many patients aren’t able to return to work. Many patients become very depressed and angry. They level that anger at their family, themselves, and, very often, at their spine surgeon because they are looking to us to improve their situation.”

Dr. Lieberman added that some patients undergo additional surgery or conservative treatments that are expensive, ineffective, or lead to iatrogenic issues. “Over time, these patients are subject to financial disincentives to improving,” he told the NASS 2018 audience.

Thus, even if spinal pathology is corrected and patients still have symptoms, their perceived amount of pain or function can be altered if psychological risk factors are identified through pre-operative screening. Identifying these emotional risk factors can help prevent or alter fear avoidance so that patients can regain their functional abilities, Dr. Lieberman concluded.

Disclosures

Dr. Lieberman is a consultant and has received research support, royalties, and stock options from Mazor Robotics, and also is a consultant for Stryker Spine, Globus Medical, Misonix, and Safe Orthopaedics.

Footnotes:

Lieberman IH. Who should be referred for PPE, and Why? Presented at: North American Spine Society (NASS) 33rd Annual Meeting. September 26, 2018, Los Angeles, CA.

— [View Sources](#) —

Updated on: 10/11/18

[Continue Reading](#)

[Marked Rise in Lumbar Fusion Rates Found in Past Decade](#)

[5]

Updated on: 10/11/18

Practice Services

- [Register Your Spine Practice](#)
- [Practice Website Development](#)
- [Premium Practice Listing](#)

Resources for Spine Professionals

- [Case Submission Guidelines](#)
- [Clinical Trials](#)
- [Editorial Board](#)
- [Meetings and Events](#)
- [News and Research](#)
- [Spine Case Library](#)

- [SpineMonitor eNewsletter Archive](#)
- [Sponsored Resources](#)

Policy and Contact

- [About SpineUniverse](#)
- [Advertising Policy](#)
- [Advertising Opportunities](#)
- [Contact Us](#)
- [Editorial Guidelines](#)
- [Partners and Sponsors](#)
- [Privacy Policy](#)
- [Terms of Use](#)
- [For Patients](#)



© 1999-2018 [Vertical Health, LLC](#)

This information is not designed to replace a physician's independent judgment about the appropriateness or risks of a procedure for a given patient. Always consult your doctor about your medical conditions or back problem. SpineUniverse does not provide medical advice, diagnosis or treatment. Use of the SpineUniverse.com site is conditional upon your acceptance of our [User Agreement](#)

verticalhealth

Source URL: <https://www.spineuniverse.com/professional/news/which-patients-undergo-pre-surgical-psychological-evaluation-spine-surgery>

Links:

- [1] <https://www.spineuniverse.com/author/43738/della-volpe>
- [2] <https://www.spineuniverse.com/author/1500/lieberman>
- [3] https://www.spineuniverse.com/sites/default/files/imagecache/gallery-large/wysiwyg_imageupload/3998/2018/10/09/mental_physical_health_care_123RF_11119733_ML.jpg
- [4] https://www.spineuniverse.com/sites/default/files/imagecache/gallery-large/wysiwyg_imageupload/3998/2018/10/09/Lieberman_Table.jpg
- [5] <https://www.spineuniverse.com/professional/news/marked-rise-lumbar-fusion-rates-found-past-decade>

Cancel

Delete