

Pain Scores After Spinal Surgery Based on Zung Depression Scores

Tejas Purimetla, B.S.^{1,2}, Melissa Baker, MD², Zorica Buser, Ph.D²

¹Geisel School of Medicine at Dartmouth College, Hanover, NH; ²Department of Orthopedic Surgery, Grossman School of Medicine, NYU, NY

Background

- Depression is a global issue and is becoming an increasingly greater cause of disability worldwide.
- Back pain is also a major cause of disability and is only expected to increase in prevalence with an aging populace.
- Suboptimal mental health (depression, anxiety) in patients undergoing spine surgery is associated with worse clinical outcomes following the surgery.
- High degree of variability regarding the effectiveness of spine surgery in improving various pain/depression self-reported patient outcomes.

Zung Self-Rating Depression Scale

- Zung Self-Rating Depression Scale (SDS) is an instrument used for measuring the presence and severity of depressive symptoms in individuals.
- SDS consists of 20 items, with each item assigned a rating on a scale from 1 (none or some of the time) to 4 (most or all of the time).
- Validated as a standardized tool to evaluate depressive symptoms pre- and post-operatively across various populations.

Make Check Marks (✓) In appropriate Column	A little of the time	Some of the time	Good part of the time	Most of the time
1. I feel down hearted and blue	1	2	3	4
2. Morning is when I feel the best	4	3	2	1
3. I have crying spells & feel like it.	1	2	3	4
4. I have trouble sleeping at night	1	2	3	4
5. I eat as much as I used to	4	3	2	1
6. I still enjoy sex	4	3	2	1
7. I notice that I am losing weight	1	2	3	4
8. I have trouble with constipation	1	2	3	4
9. My heart beats faster than usual	1	2	3	4
10. I get tired for no reason	1	2	3	4
11. My mind is as clear as it used to be	4	3	2	1
12. I find it easy to do the things I used to	4	3	2	1
13. I am restless and can't keep still	1	2	3	4
14. I feel hopeful about the future	4	3	2	1
15. I am more irritable than usual	1	2	3	4
16. I find it easy to make decisions	4	3	2	1
17. I feel that I am useful and needed	4	3	2	1
18. My life is pretty full	4	3	2	1
19. I feel that others would be better off if I were dead	1	2	3	4
20. I still enjoy the things I used to	4	3	2	1

METHODS

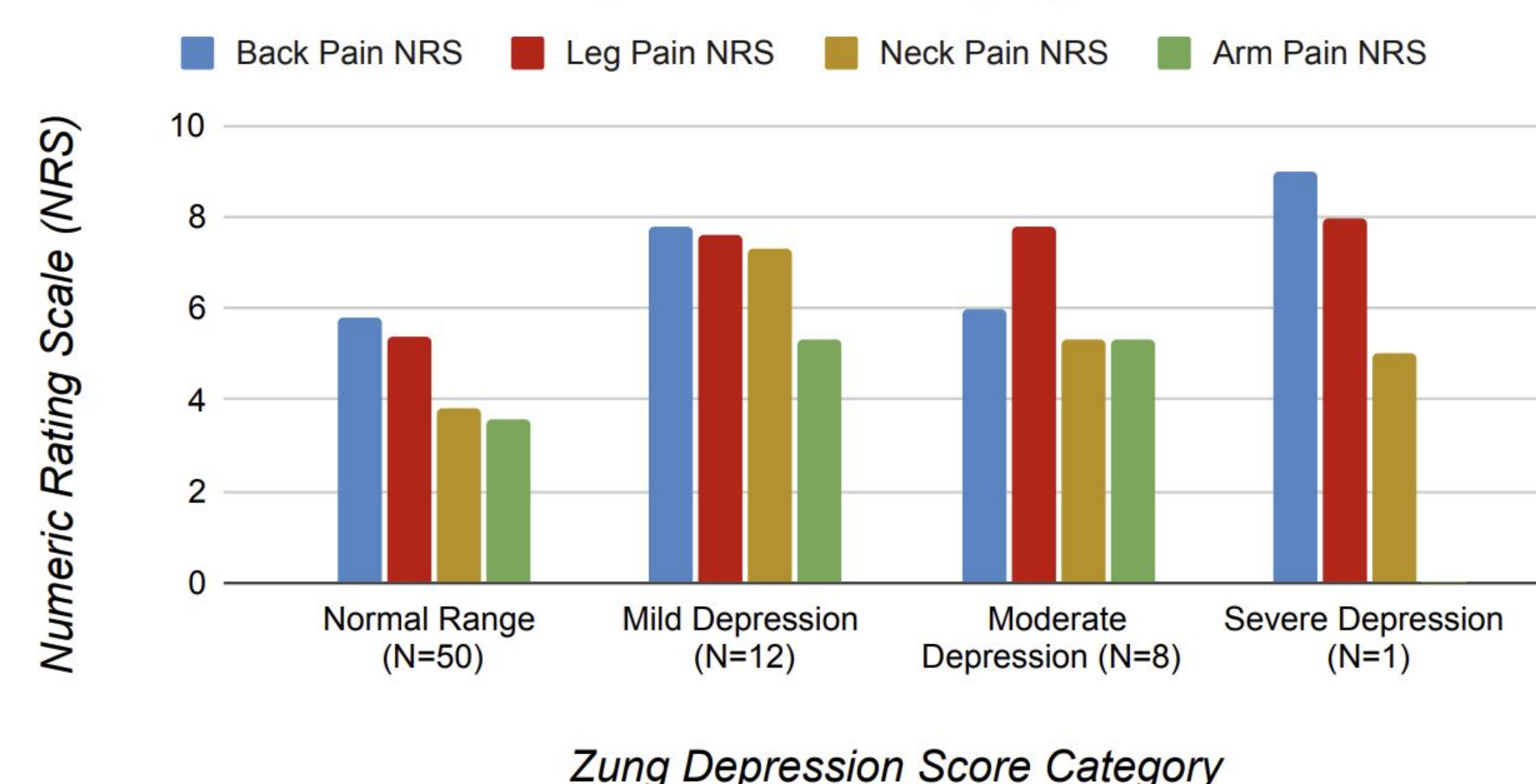
Data Analysis Parameters

Zung Score	Category
25 - 49	Normal Range
50 - 59	Mildly Depressed
60 - 69	Moderately Depressed
70 and above	Severely Depressed

- For the derivation of the Zung score, one answer missed or not applicable was acceptable.
- The higher the scores the worse patient-reported outcomes.

RESULTS

Mean Pain Numeric Rating Scores Based on Zung Depression Category



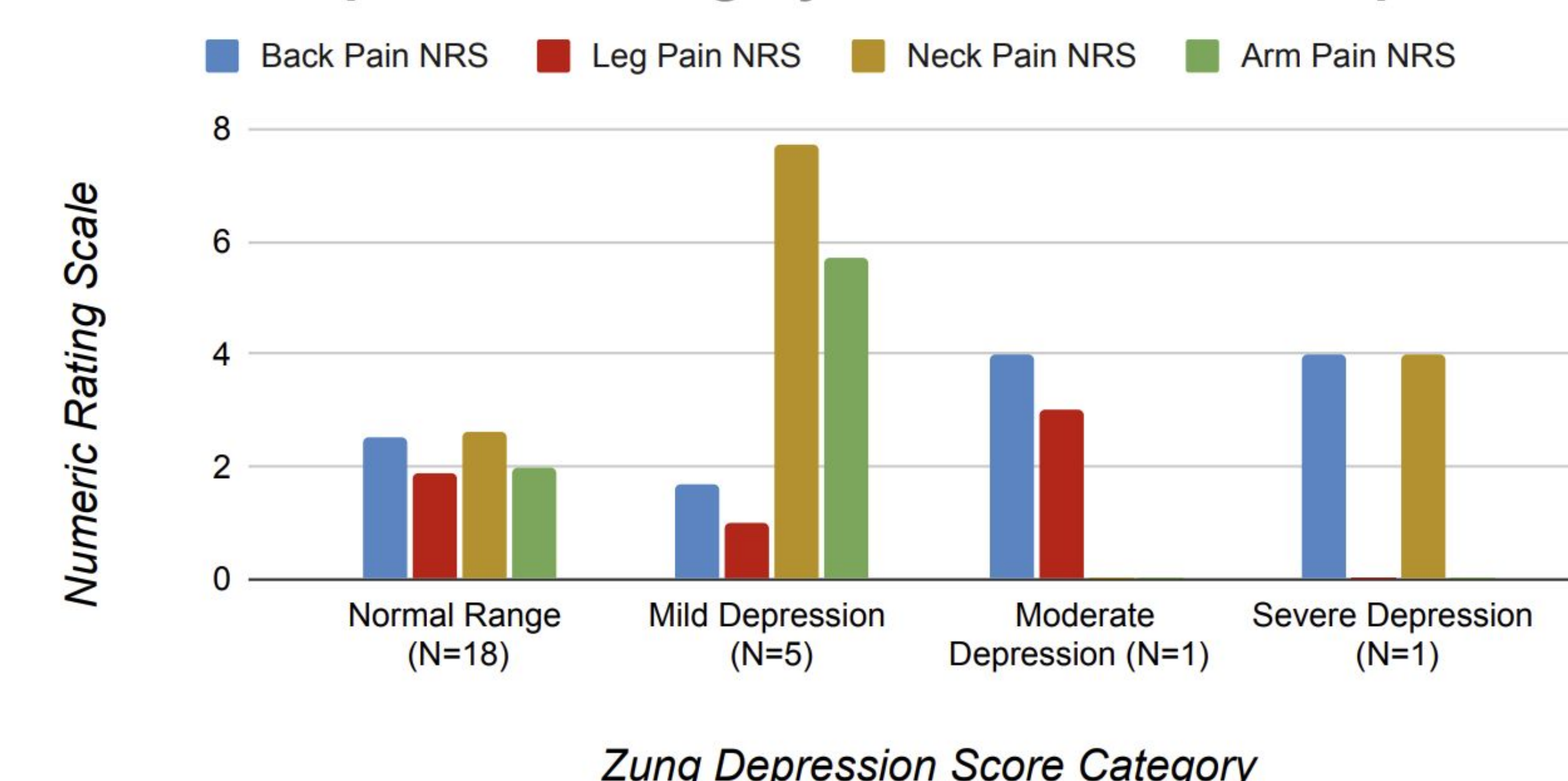
Acknowledgement and References

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RESULTS

Mean Pain Numeric Rating Scores Based on Zung Depression Category at 6-month Follow-Up



DISCUSSION

Future Directions

- Continued data collection, with an emphasis on patients that fit in the 3 depressed categories, aiming for an n=50 in each category.
- Investigate other types of spine surgeries other than decompressions and fusions.

CONCLUSIONS

- Pain numeric rating scores are consistently higher across 4 different regions of the body in people with mild to severe depression compared to patients without depression before undergoing spine surgery.
- Pain numeric rating scales stay elevated even at 6 month follow-up visits.