



Introduction

- Fibromyalgia, a CNS disorder, causes debilitating chronic pain.
- The current standard of care includes gabapentinoids and SNRIs to combat neurotoxicity and lack of monoamine neurotransmitters.
- Gabapentinoids and SNRIs have been shown to cause side effects yet achieve only minimal pain relief.
- An alternative treatment Low-Dose Naltrexone (LDN) has been shown to decrease inflammation by enhancing the anti-inflammatory microglia phenotype, which could potentially be a more effective therapy for fibromyalgia with less side effects.
- Studies treating fibromyalgia with LDN against a placebo show promising improvements in pain scores, but comparisons against standard of care remain largely limited.

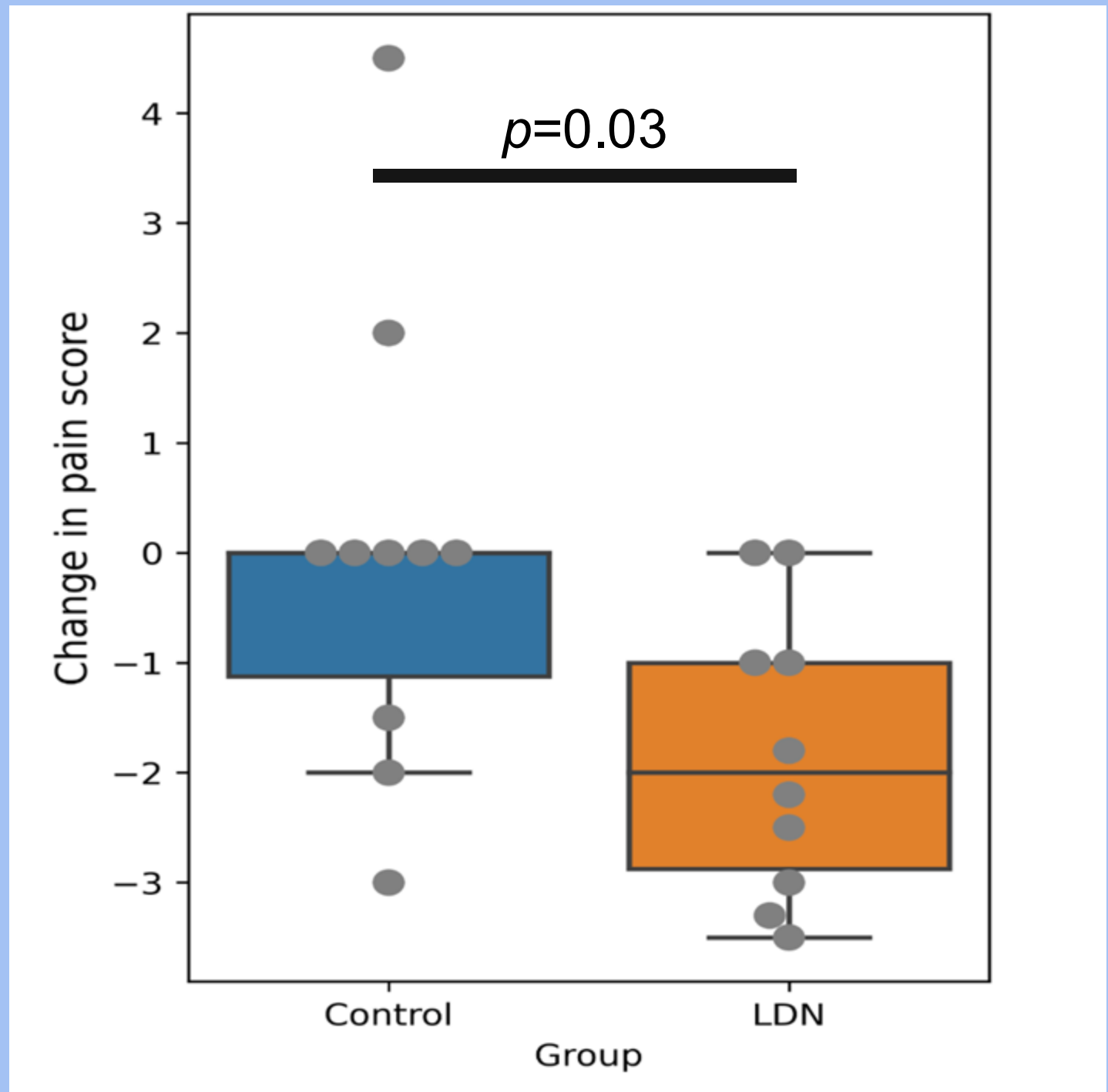
Methods

- Retrospective cohort study of fibromyalgia patients at the Columbia University Pain Clinic from January 1, 2020, to June 15, 2025.
- 20 patients total: 10 treated with gabapentinoids and 10 treated with LDN.
- VAS Pain Scores and reported side effects were documented using patients' electronic medical records.

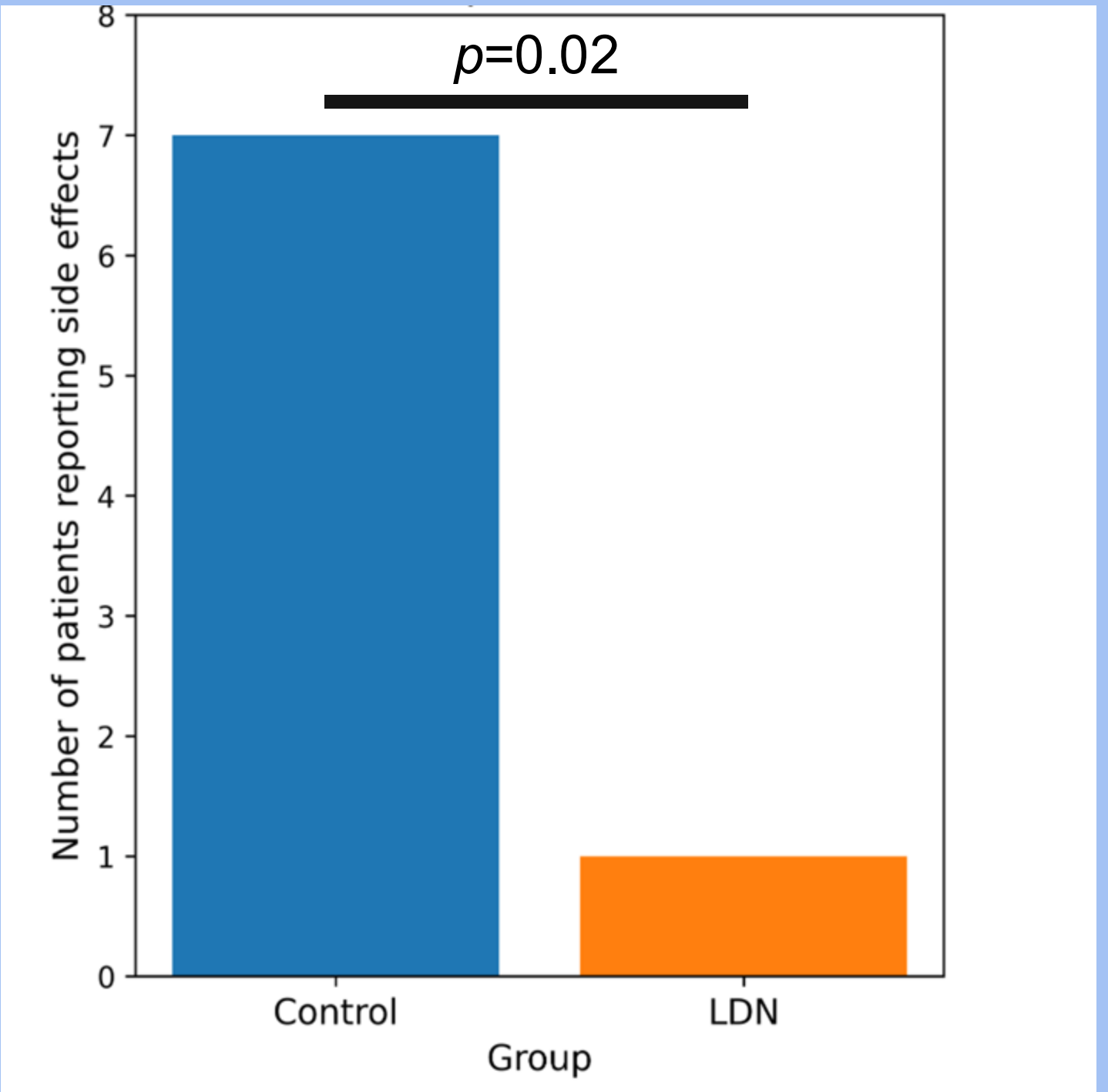
Characteristic	LDN (n=10)	Control (n=10)	P value
Age (years), mean ± SD	47.8 ± 10.9	47.4 ± 12.0	0.65
Gender (% female)	90%	70%	0.58
Baseline Pain Score, mean ± SD	0.71 ± 0.20	0.66 ± 0.21	0.59

How does Low-Dose Naltrexone compare to the Gabapentinoid standard of care for fibromyalgia?

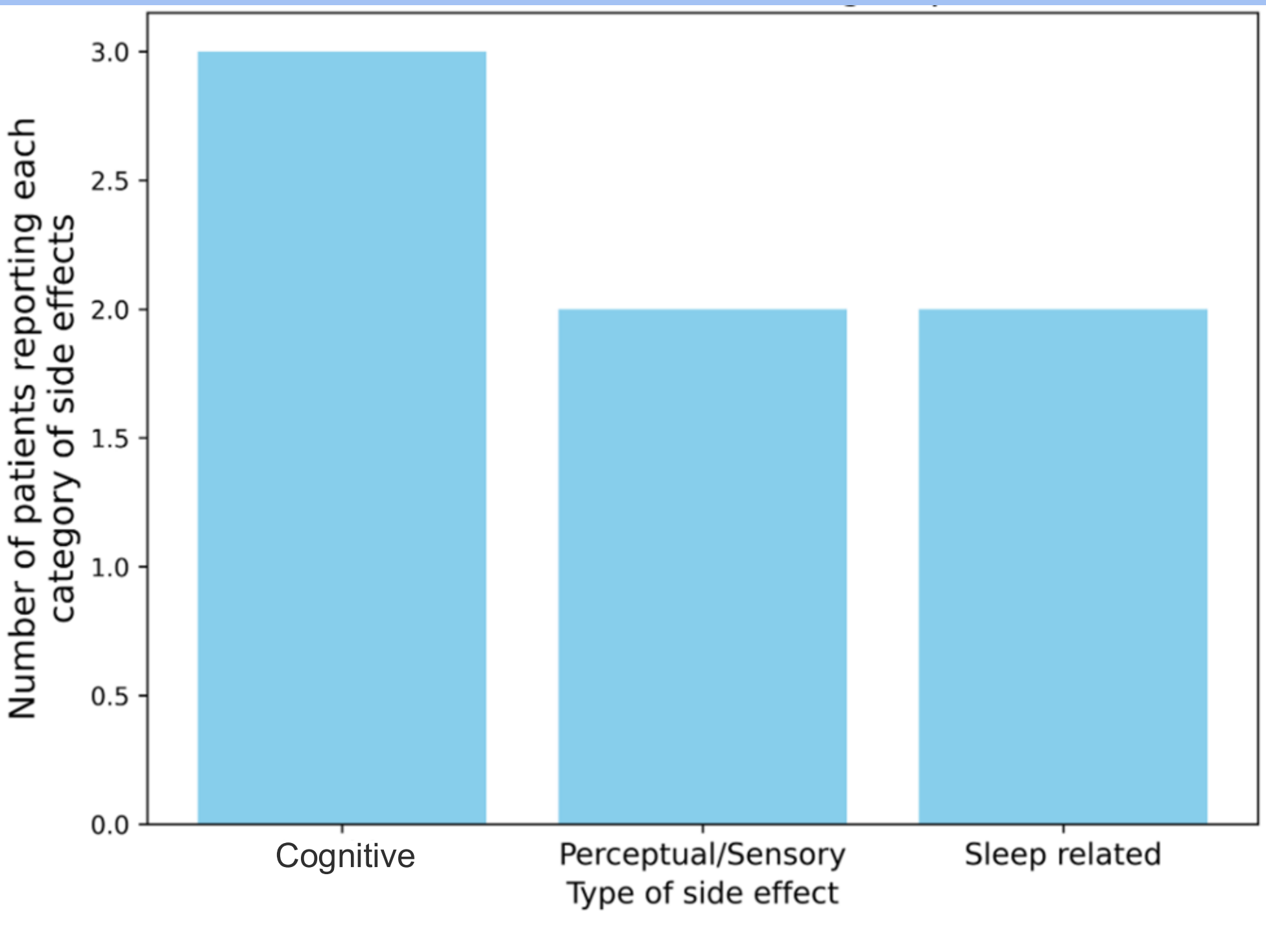
Patients treated with LDN had significantly greater pain reductions during their treatment compared to standard of care (p=0.03).



Significantly fewer LDN patients reported side effects compared to patients receiving standard of care (p=0.02).



Most common side effects of gabapentinoids standard of care were cognitive.



Results

- There was a significant decrease in LDN VAS pain scores when compared to gabapentinoid VAS pain scores.
- The median pain reduction was LDN = −1.83 versus gabapentinoid = 0 (p= 0.03).
- Fewer LDN patients (10%) reported side effects compared to gabapentinoid patients (70%) (p= 0.02).
- For the gabapentinoid patients, the most common side effects were cognitive (42.8%).

Discussion

- This study suggests that LDN is more effective for managing fibromyalgia pain and has a lesser side effect profile than the standard of care gabapentinoids.
- The microglia anti-inflammatory enhancing mechanism of LDN may help explain why it is effective in managing fibromyalgia pain.
- With more research, LDN could eventually be incorporated as a standard of care therapy for fibromyalgia.
- Future directions should include the development of randomized controlled trials of LDN versus gabapentinoids in larger, multi-site cohorts.

Limitations:

- Small sample size (n=20)
- Retrospective Design
- Single Center Study

References

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