

Patient-Reported Satisfaction with Using a Rechargeable 10 kHz Spinal Cord Stimulation Device

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INTRODUCTION

- Chronic pain is frequently treated with pharmacotherapies, including opioid analgesics, which often have low efficacy and negative side-effects.^{1,2}
- High-frequency spinal cord stimulation delivered at 10 kHz (10 kHz SCS) is a non-pharmacological approach demonstrated to be safe with substantial and durable relief of trunk and limb pain.³
- Rechargeable devices eliminate the clinical risks and costs associated with periodic surgeries to replace non-rechargeable IPGs used in some conventional SCS devices.

OBJECTIVE

- The current study evaluated whether rechargeable technology is practical and convenient for patients receiving 10 kHz SCS therapy for management of chronic pain.

METHODS

- Retrospective evaluation of real-world, de-identified data from an industry-maintained registry of patient-reported outcomes in patients implanted with a 10 kHz SCS system for treatment of chronic refractory pain of the trunk and/or limbs.
- No exclusion criteria were applied.
- Implantation, which entailed surgical insertion of octapolar leads in the epidural space at locations determined by the patient’s pain, was conducted only in patients who experienced a ≥50% reduction in pain during a pre-implant trial period.
- Data collected from October 2, 2016 through January 29, 2020

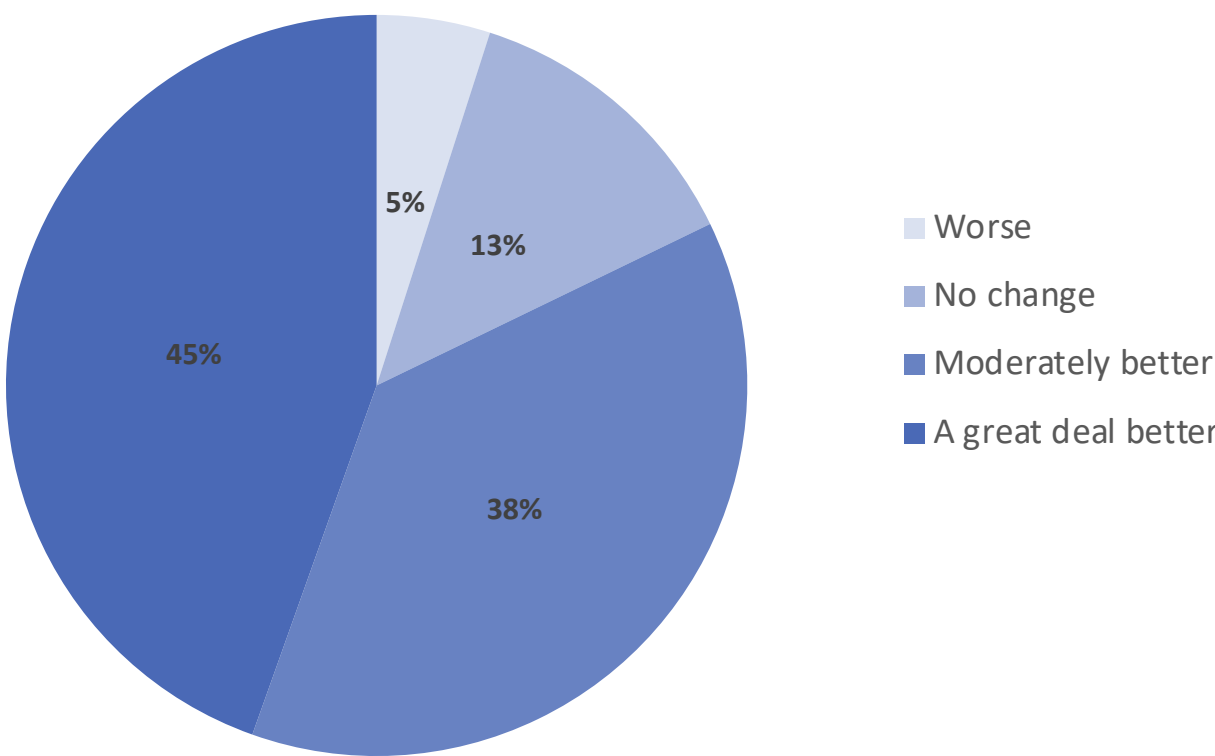
N	10,391
Mean Age	67 years
Median Follow-up Time	361 days
Range of Follow-up Time	180-1550 days
Female	5831 (56.1%)
Previous Neuromodulation	1389 (16.2%)
Previous Spine Surgeries	5607 (65.5%)

Table 1. Patient Demographics

RESULTS: Quality of life

- 83% of patients reported that after initiating 10 kHz SCS treatment, activity limitations, symptoms, emotions, and overall quality of life were a great deal or moderately better

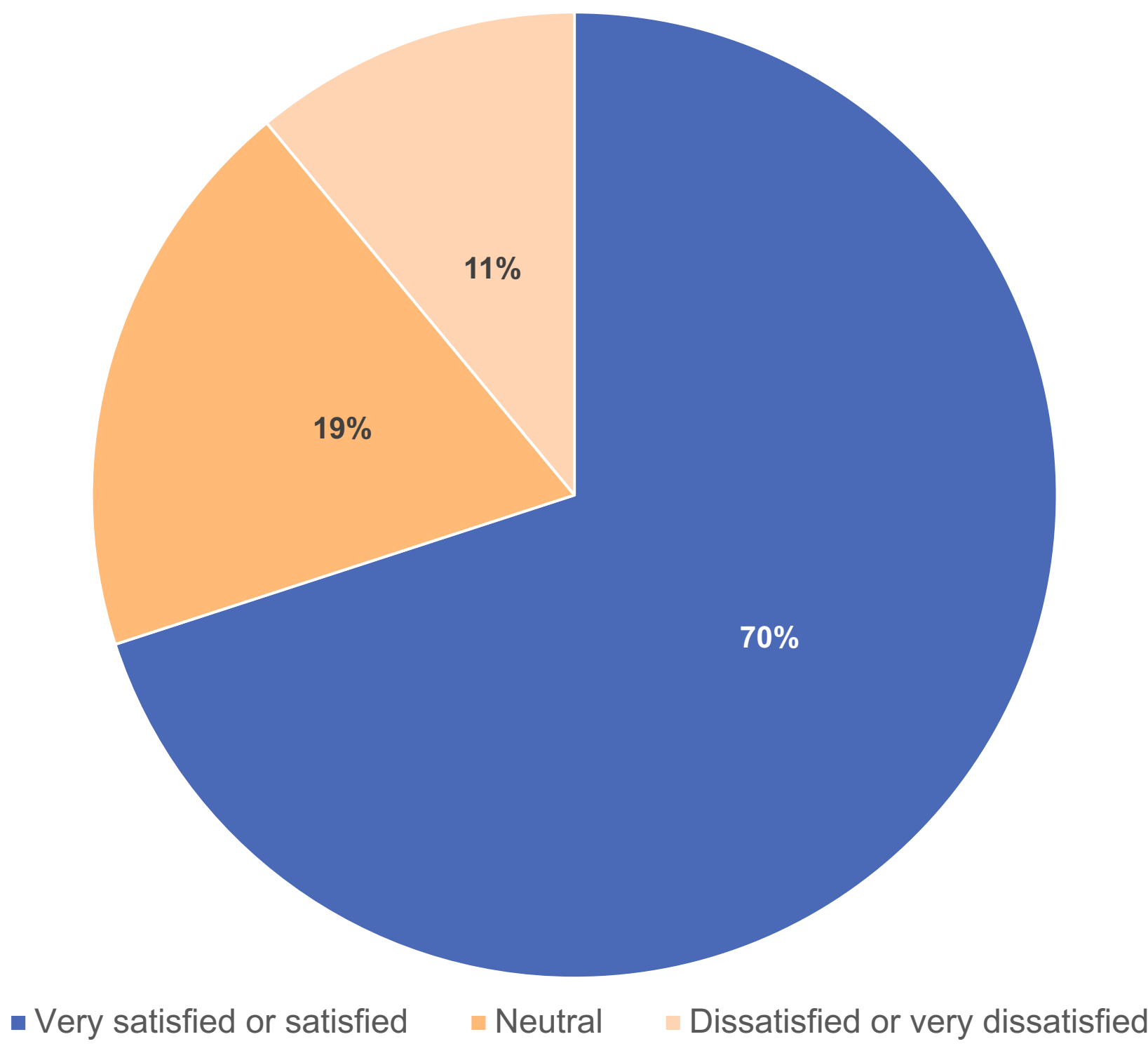
Since having your device, how would you describe the change in activity limitations, symptoms, emotions and overall quality of life? (n=10,391)



- 71% of patients reported being “likely” or “very likely” to repeat the procedure to achieve the same results (n=10,369)
- 77% would recommend this therapy to others with a similar pain experience (n=10,035)

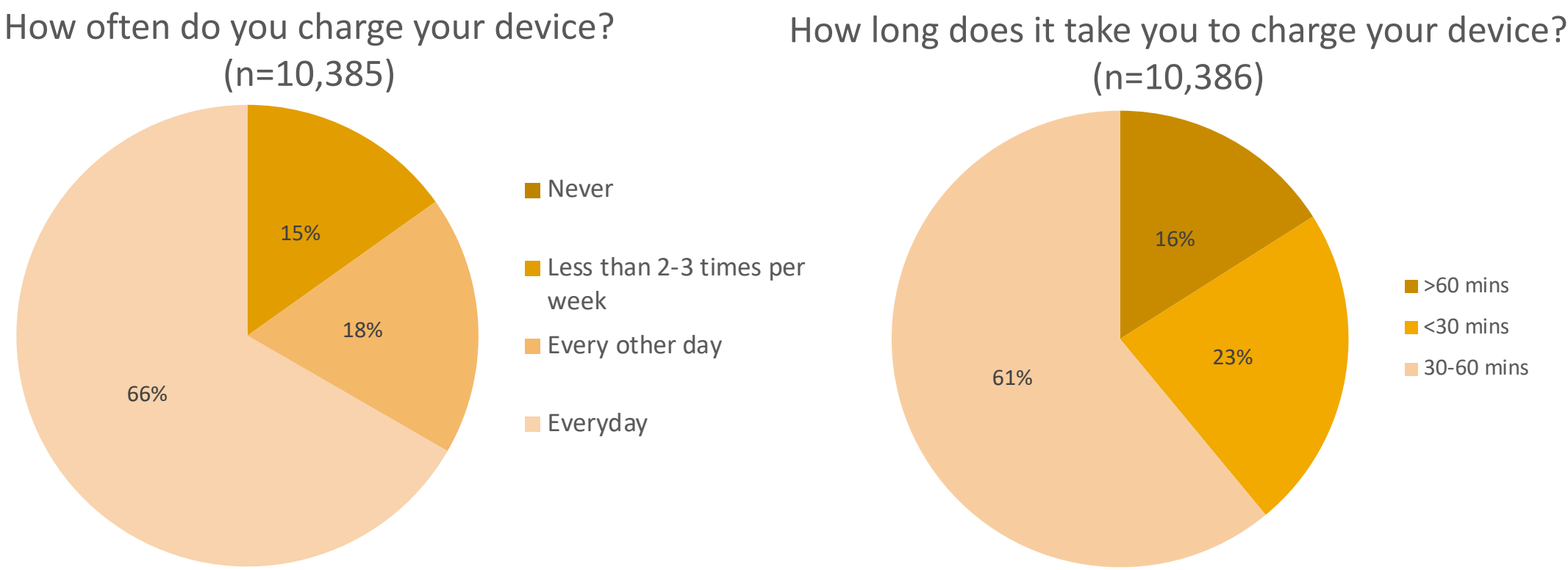
70% of 10 kHz SCS patients were satisfied with the device recharging experience

Patient satisfaction with the convenience of device charging

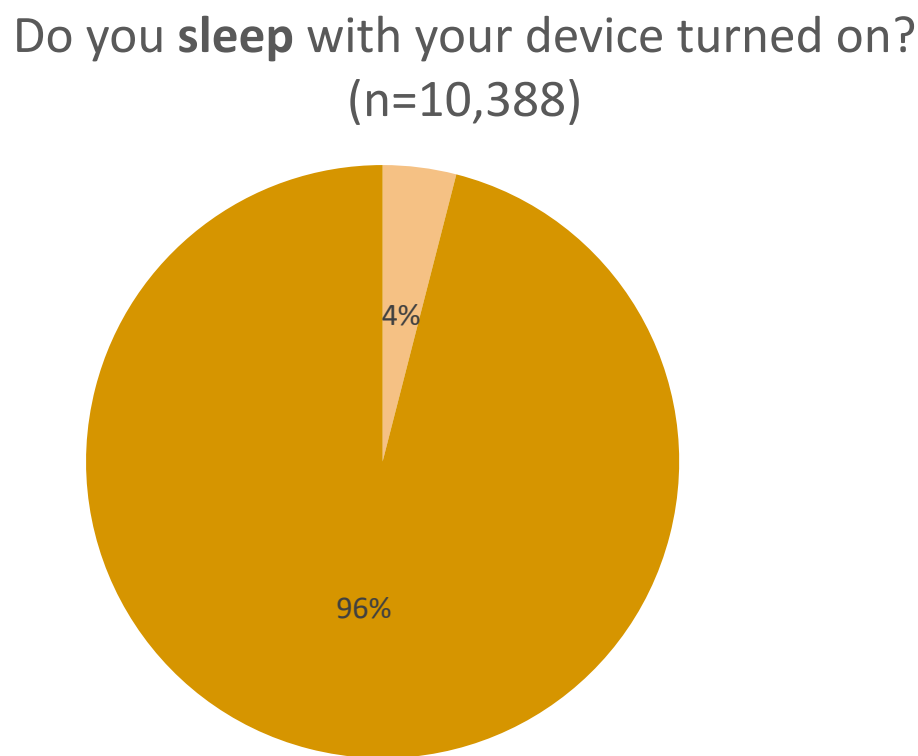
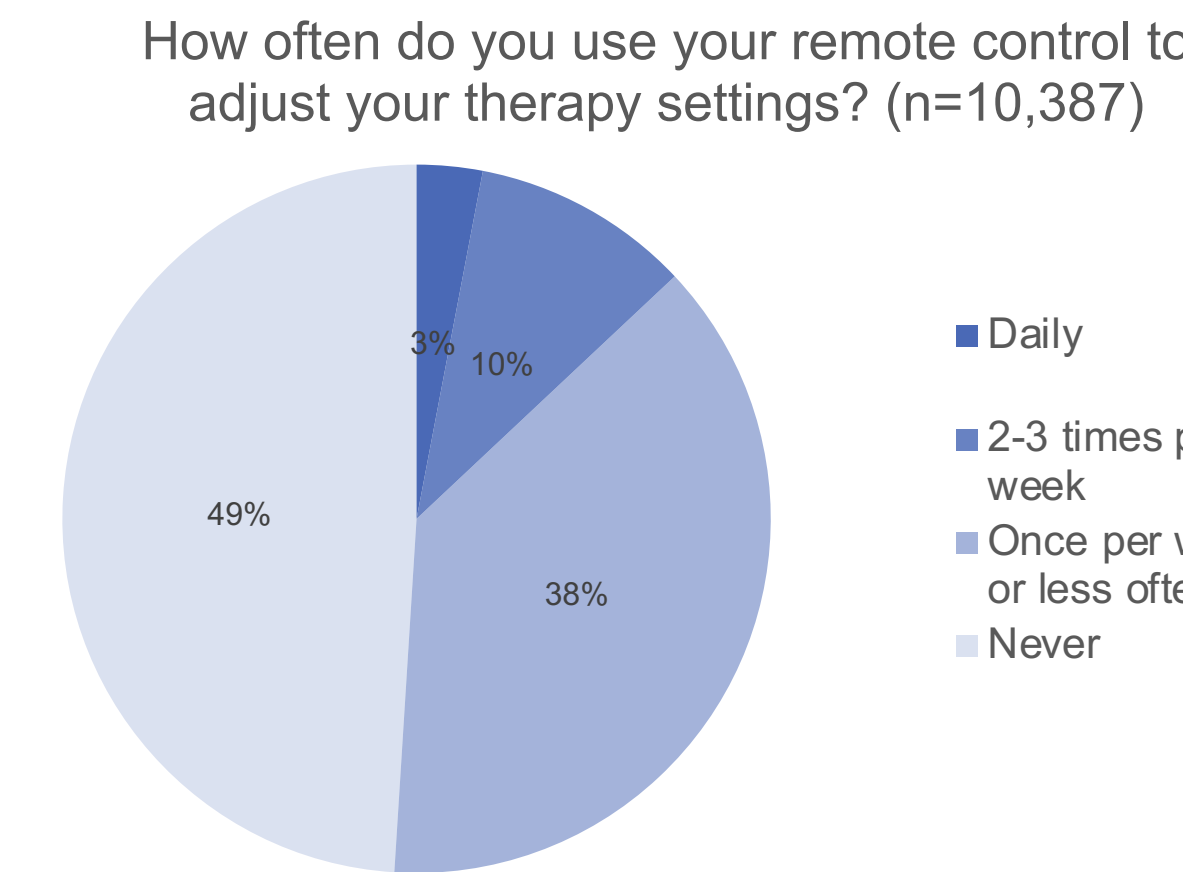


RESULTS: Recharging behaviors and satisfaction

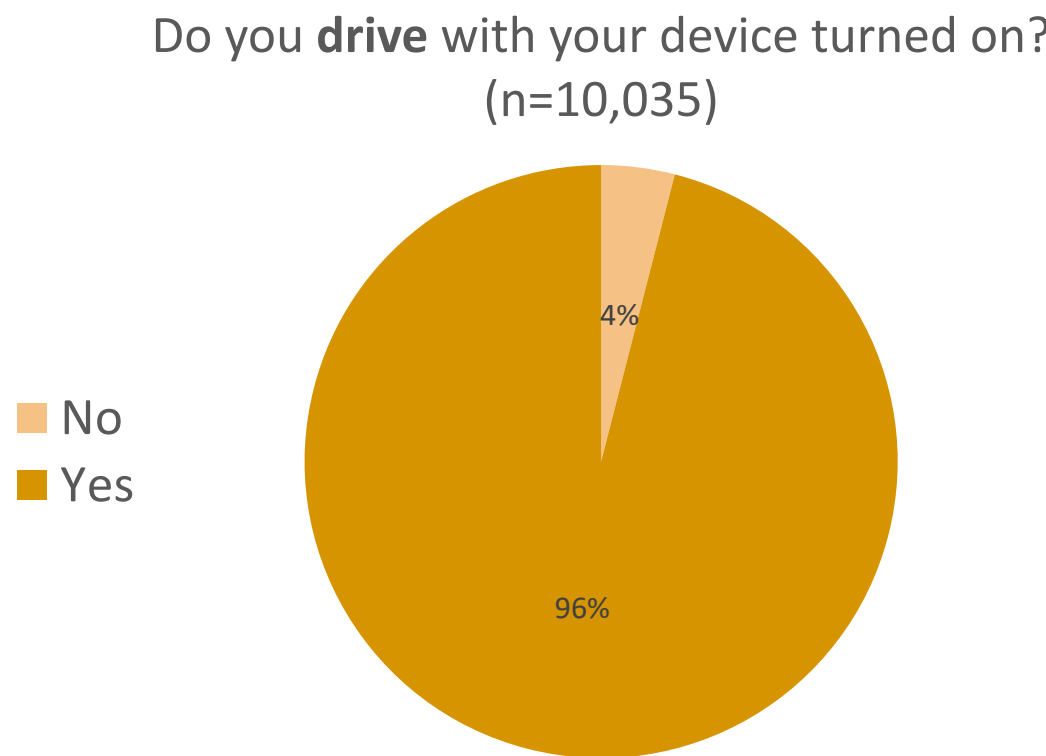
- 66% of patients charge their device every day and 84% of patients charge for ≤60 minutes



- Most patients did not individually adjust the therapy settings of their device

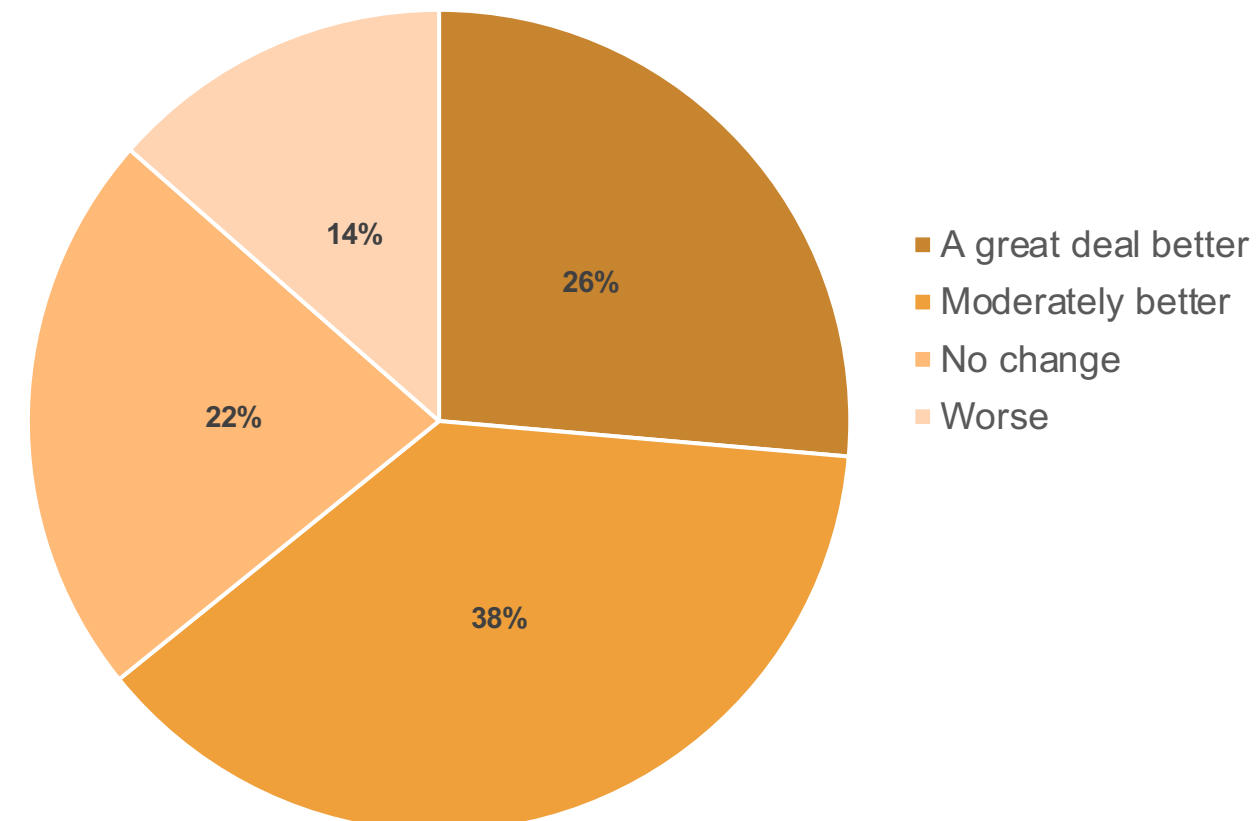


- 96% of patients reported using the device while sleeping and driving



Patients dissatisfied with charging

- Most patients who reported being dissatisfied with the device’s recharging requirements, reported experiencing better overall quality of life since initiating 10 kHz SCS (64%)
- Over half stated they would recommend the same therapy to others with similar pain.



CONCLUSIONS

- More than 80% of over 10,000 patients with chronic refractory pain reported improved functioning and quality of life following treatment with 10 kHz SCS
- In almost all patients, IPG recharging requirements were manageable and/or did not diminish therapy outcomes or overall patient satisfaction.

References

Results originally published in: Hagedorn, J. M., Tate, J., & Bharara, M. (2023). Patient-Reported Satisfaction with Using a Rechargeable 10 kHz Spinal Cord Stimulation Device. Journal of Pain Research, 47-53.

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