

## PURPOSE:

1. **Describe** describe patients' perspectives with the integration a novel motor control assessment tool [The Neckcare System (NCS)] in the clinical management of their neck pain.
2. **Identify** potential facilitating factors and barriers for clinical integration.



## METHODS:

- **Participants:** Patients seeking physical therapy (N=25) for neck pain from 2 outpatient clinics.
- **Semi-structured interviews** were performed after patients completed 3 assessment sessions over 6 weeks with the NCS.
- **Rapid Qualitative Analysis** was used to explore patients':
  - 1) experience with the NCS
  - 2) understanding of the assessment results
  - 3) ideas for optimizing integration with PT care.

## RESULTS:

- Highlighted the ability to **track progression**:

*"But then if you're tracking it over time, you could probably slowly see a progression of it getting better. So maybe even if one week is worse, it's just one week over the course of like months. Which can be like encouraging."*

- Highlighted the ability to receive **visual and objective feedback**:

*"Because it's all kinda subjective, and when you're in pain, it's hard to remember how you felt the day before and whatever. But having something like this that can straight up tell me, a month ago, you could only move your neck this much, now you're moving your neck this much."*

- Discussed their **understanding of NCS results in connection with function and their pain**:

*"So it's a great way of kind of getting a self-understanding of where the pain starts, where it is not."*

- Integrated into physical therapy care by providing **more specificity to their diagnoses, guiding treatment**, and for use as a **communication tool** to patients and other care team members.

*"Can I go to my physical therapist and say, Hey, it seems like my range of motion to the right isn't getting better? Can we work on this? I don't know. Like. It's it's nice that it makes it simpler and easier to track."*

## CONCLUSIONS:

- Patients **highly valued** the added **visual feedback of performance** provided by the figures and tables in the NCS output
  - Meaningful information on their neck movement
  - Enabled them to track progress over time
- Patients drew connections between their **pain**, the **treatment strategies** used in PT, and their **progress**.
  - Active Engagement



## CLINICAL RELEVANCE:

Patients valued objective performance data presented in easy to digest figures and used this data to make judgements on their progress and to better understand their pain. **The findings from this qualitative study may provide useful information that can broadly assist with the integration of novel assessment tools in a patient-centered manner.**

## REFERENCES:

Alodaibi, F., Beneciuk, J., Holmes, R., Kareha, S., Hayes, D., & Fritz, J. (2021). The relationship of the therapeutic alliance to patient characteristics and functional outcome during an episode of physical therapy care for patients with low back pain: an observational study. *Physical therapy, 101*(4), p2ab026.

Falsiroli Maistrello, L., Zanonato, L., Palese, A., Geri, T., Turolla, A., Gianola, S., ... & Rossetini, G. (2022). Perceptions and experiences of individuals with neck pain: a systematic critical review of qualitative studies with meta-summary and meta-synthesis. *Physical Therapy, 102*(8), p2ac080.

Ng, J. H., & Luk, B. H. (2019). Patient satisfaction: Concept analysis in the healthcare context. *Patient education and counseling, 102*(4), 790-796.

Owens, J. G., Rauzi, M. R., Kittelson, A., Graber, J., Bade, M. J., Johnson, J., & Nabhan, D. (2020). How new technology is improving physical therapy. *Current reviews in musculoskeletal medicine, 13*, 200-211.

Rossetini, G., Latini, T. M., Palese, A., Jack, S. M., Ristori, D., Gonzatto, S., & Testa, M. (2020). Determinants of patient satisfaction in outpatient musculoskeletal physiotherapy: a systematic, qualitative meta-summary, and meta-synthesis. *Disability and rehabilitation, 42*(4), 460-472.

Vindrola-Padros, C., & Johnson, G. A. (2020). Rapid techniques in qualitative research: a critical review of the literature. *Qualitative health research, 30*(10), 1596-1604.

Liu S, Wang B, Fan S, et al. Global burden of musculoskeletal disorders and attributable factors in 204 countries and territories: a secondary analysis of the Global Burden of Disease 2019 study. *BMI Open 2022;12:e062183*. doi: 10.1136/bmjopen-2022-062183