

# Using neurologic music therapy (NMT) during COVID-19: A mixed-methods analysis of online survey reports

### Introduction

#### Rationale

- The COVID-19 pandemic has led to rapid implementation of telehealth services by healthcare providers,<sup>1,2</sup> including neurologic music therapists (NMTs).
- Telehealth refers to the distribution of healthrelated services at a distance via remote technologies<sup>2</sup>.
- Neurologic Music Therapy (NMT) is an evidencebased treatment model used to address cognitive, sensorimotor, and speech and language dysfunctions arising from neurological impairments<sup>3</sup>.
- No studies have investigated the effects of telehealth on NMTs and their clinical practice.

#### Purpose

To investigate the factors related to NMTs' transition of services from in-person to telehealth to

- 1) identify factors for successful online delivery,
- 2) identify factors for continuity in patientclient relationships and therapeutic goals, and
- 3) describe how telehealth alters clinical practice.

## Methods

#### **Participants**

81 participants answered the survey and 70 were included in the analysis.

#### Design

A cross-sectional survey design was employed.

#### Procedure

- An online survey with forty-nine closed and openended questions was distributed by the Academy of Neurologic Music Therapy to 3200 NMT affiliates worldwide.
- Seven sections included: Demographics, Telehealth Perceptions, Technology, Assessment, Clinical Practice, Safety, and Caregiver Involvement.
- Quantitative and qualitative analyses were applied.

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### Results

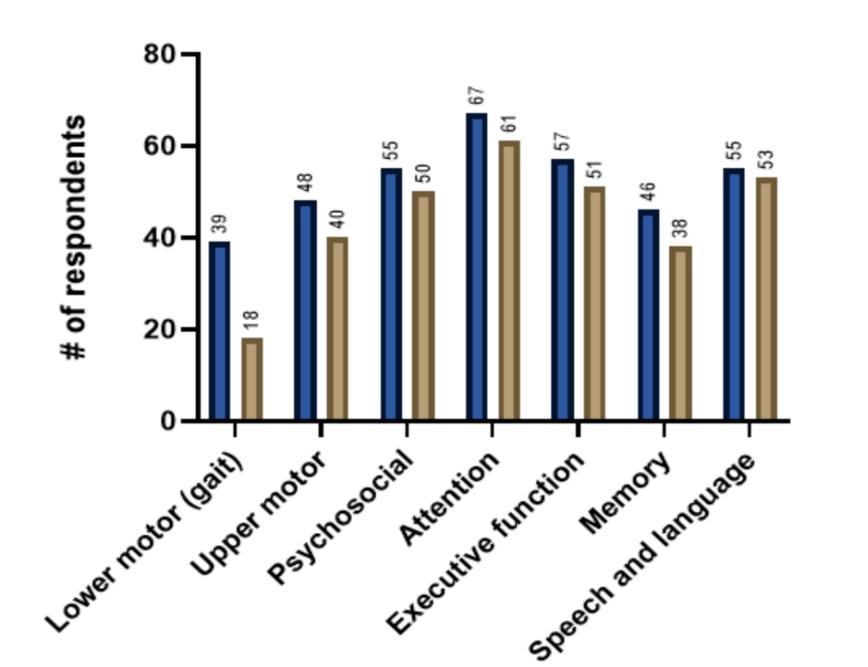
In telehealth relative to in-person sessions, fewer NMTs implemented motor techniques,  $\chi^2(2) = 6.08$ , p = .048. This was particularly evident for the NMT gait training intervention Rhythmic Auditory Stimulation (RAS).

The frequency of using NMT techniques vs. non-NMT interventions in telehealth was positively correlated with successful continuation of services, rs(13)=-.29, p=.04; perception of telehealth, rs(13)=.30, p=.03; and optimism regarding future use of telehealth, rs(13)=.29, p=.03.

Age of therapist was negatively correlated with perceptions of telehealth, rs(13)=-.33, *p* = .02.

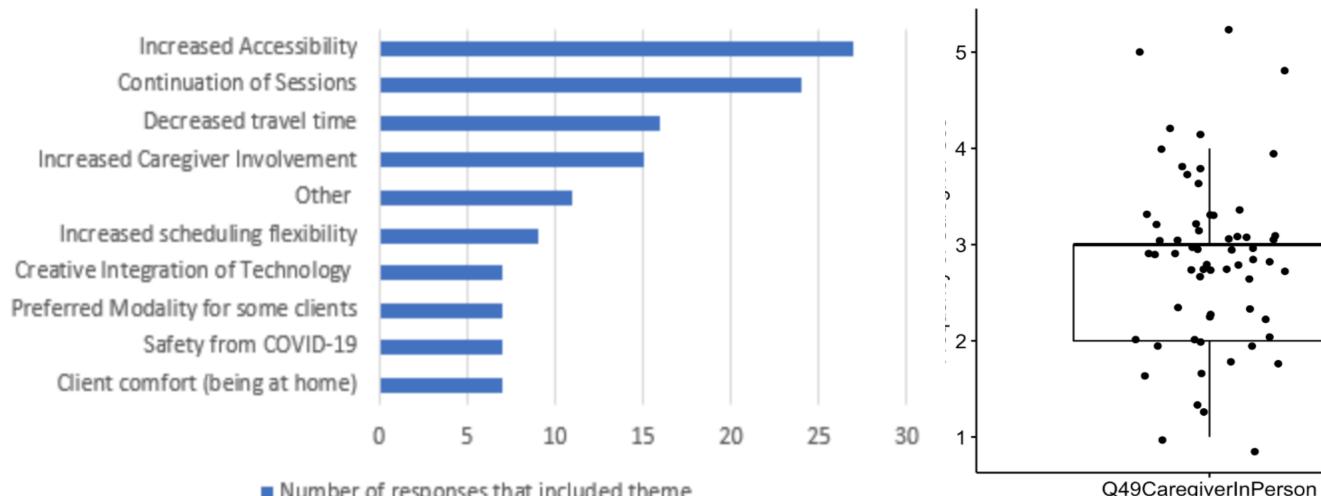
Caregiver involvement was more frequent in telehealth vs. in-person, z = -5.54, p < .001.

Qualitative analysis revealed that safety concerns for motor interventions (primarily gait) and technical difficulties were barriers in telehealth, but higher accessibility, ability to continue services, and increased caregiver involvement were significant benefits.



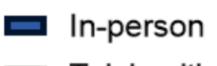
#### Figure 1: The Frequency of technique use for in-person vs. telehealth NMT

Figure 2: Benefits of NMT telehealth



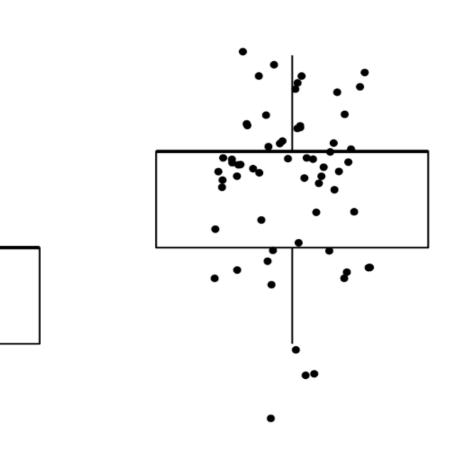
Number of responses that included theme





Telehealth

#### Figure 3: Increase in caregiver involvement in telehealth vs. in-person



Q49CaregiverTelealth

Mode of Delivery

## Conclusions

- More exclusive use of NMT techniques is associated with successful adaptations of services over telehealth.
- Due to safety concerns, gait training may be contraindicated for telehealth clients, unless there is appropriate caregiver support.
- Though there are drawbacks, telehealth is a valuable way of continuing NMT services for pre-existing clients and making NMT accessible to rural or otherwise inaccessible clients.
- The benefits of caregiver involvement in NMT on skill transfer in clients should be studied in future research<sup>4</sup>.
- The results provide direction towards future research for the development of best practice guidelines for NMT telehealth globally.
- Future studies should determine the benefits and drawbacks of telehealth for specific clinical populations.

## References

- 1. Smith, A. C., Thomas, E., Snoswell, C. L., Haydon, H., Mehrotra, A., Clemensen, J., & Caffery, L. J. (2020). Telehealth for global emergencies: Implications for coronavirus disease 2019 (COVID-19). Journal of telemedicine and telecare, 1357633X20916567.
- 2. Wosik, J., Fudim, M., Cameron, B., Gellad, Z. F., Cho, A., Phinney, D., ... & Katz, J. N. (2020). Telehealth Transformation: COVID-19 and the rise of Virtual Care. Journal of the American Medical Informatics Association, 27(6), 957-962.
- 3. Thaut, M., & Hoemberg, V. (Eds.). (2014). *Handbook of Neurologic Music Therapy*. Oxford University Press (UK).
- 4. Thompson, G. A., McFerran, K. S., & Gold, C. (2014). Family-centred music therapy to promote social engagement in young children with severe Autism Spectrum Disorder: a randomized controlled study. Child: Care, Health and *Development, 40*(6), 840–852.

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