Chemotherapy-Induced Neuropathy (CIN) sensation improves with both adapted tango & home exercise.

L Worthen-Chaudhari[a], PM Schnell[b], ME Hackney[c,d], MB Lustberg[d]

[a]Department of Physical Medicine & Rehabilitation, College of Medicine; [b]Division of Biostatistics, College of Public Health, The Ohio State University, Columbus, OH; [c]Division of Geriatrics and Gerontology, Emory University, Atlanta, GA; . [d]Center for Visual and Neurocognitive Rehabilitation, United States Department of Veterans Affairs, Atlanta, GA; [e]Center for Breast Cancer, Yale Cancer Center Yale University, New Haven, CT, US

Background

- Exercise has emerged as nonpharmacologic treatment option for CIN (Streckmann 2014a,b; Wonders 2013; Vollmers 2018; Zimmer 2018; Patel 2019)
- Questions remain regarding motivating participation in physical activity (Frikkel, 2020).
- To begin to investigate the effect physical activity forms that are more intrinsically motivating than exercise (Worthen-Chaudhari, 2024), we compared the effect of home exercise versus group Adapted Argentine Tango (Tango) on CIN symptoms among survivors of breast cancer.

Research Objective

- To evaluate CIN sensation through randomized controlled study of survivors with BC and CIN participating in different forms of physical activity-based intervention.

Hypothesis

- Participant-reported CIN symptoms will improve with both interventions, but with a smaller overall dose of Tango compared than home exercise.

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Four weeks of partnered Tango dance (~20min; 2x/week) improved CIN symptoms as much or more than home exercise (~45min; 2x/week).

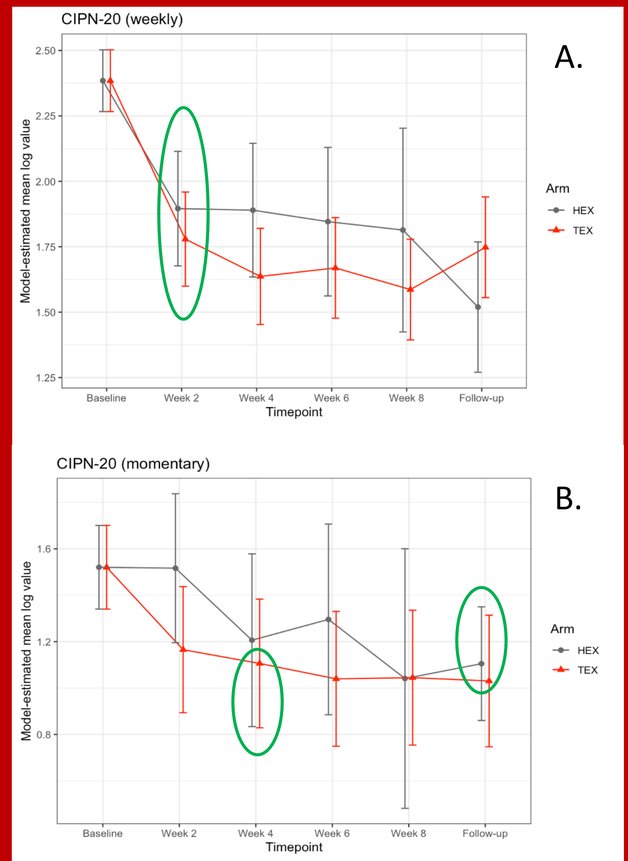

Figure 1: Participant CIN symptoms were measured every 2 weeks. We queried symptoms (A) "during the prior 7 days" and (B) "right now" (Ecological Momentary Assessment).

UPDATE in SURVIVORSHIP: Partnered tango dance improved CIN symptoms among survivors of BC.

lise.worthen-chaudhari@osumc.edu

Design

- Randomized interventional clinical trial.
- Setting: Community cancer survivorship facility.

Methods

- Participants: 52 BC survivors with self-reported CIN and demonstrated postural control deficits (Worthen-Chaudhari, et al. 2018).
- Intervention: Participants were randomized 1:1 to 8 weeks of intervention that took the form of (a) 20 minutes of partnered Tango or (b) 45 minutes of best-practice home exercise program. Frequency: 2x per week (Lantis, et al. 2023)
- Main Outcome Measure: EORTC CIPN 20 symptoms, 7-day retrospective and momentary, collected every 2 weeks over the 8-week intervention course and 1month follow up

Results & Conclusion

- The hypothesis was proven true: CIN sensation improved with both interventions, despite a smaller dose delivered in the Tango arm.
- Severity of symptoms "in the last 7-days" improved by 2 weeks for both interventions ($p < 0.0001$; Fig1A).
- Severity of symptoms "right now" improved after 4 weeks for those randomized to the Tango intervention ($p=0.0378$) but not until 1month post intervention completion for those randomized to the exercise intervention ($p<0.0001$; Fig1B).

References

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