

Music Therapy to Improve Collateral Damage in Breast Cancer Survivors

M. Rodriguez-Wolfe, †D. Anglade, †K. A. Gattamorta, *W.B. Hurwitz, -W.F. Pirl

*University of Miami Sylvester Cancer Center, Miami, FL †University of Miami School of Nursing & Health Sciences, Coral Gables, FL - Harvard Medical School, Dana-Farber Cancer Institute, Boston MA



Background

- Chemobrain also known as, chemotherapy related cognitive impairment (CRCI) is a toxicity of chemotherapy treatment that impacts cognitive abilities (1).
- CRCI affects up to 75% of patients who have received chemotherapy treatments and up to 35% still show symptoms many years following treatment (1).
- There is no standardized treatment, but there are promising results to support the use of individualized piano instruction (IPI) in elder adults (2)
- The use of music therapy to address cognitive skills in a cancer center needs further research.

Aims

1. To evaluate the feasibility of the individualized piano instruction (IPI) intervention in addressing the cognitive and psychosocial impact of chemo-brain on survivorship.
2. To evaluate the effects of individualized piano instruction (IPI) intervention on the cognitive and psychosocial symptoms of chemo-brain on survivorship.

Methods

- Participants (N=6) attended eight weekly 1-hour sessions that involved learning piano playing along with basic music theory.
- The intervention included: a participant selected music piece; a warm-up play period, the piano course, and home practice efforts.
- There were three data collection time points at pre, mid, and post the study period.

Methods Continued

- Neurocognitive, psychosocial and self-report assessments were conducted to determine potential benefits and program feasibility, including the NIH Toolbox: Cognition Battery, the FACT-Cog, the FACT-B, the PHQ-9, the GAD-7 and a participant questionnaire.

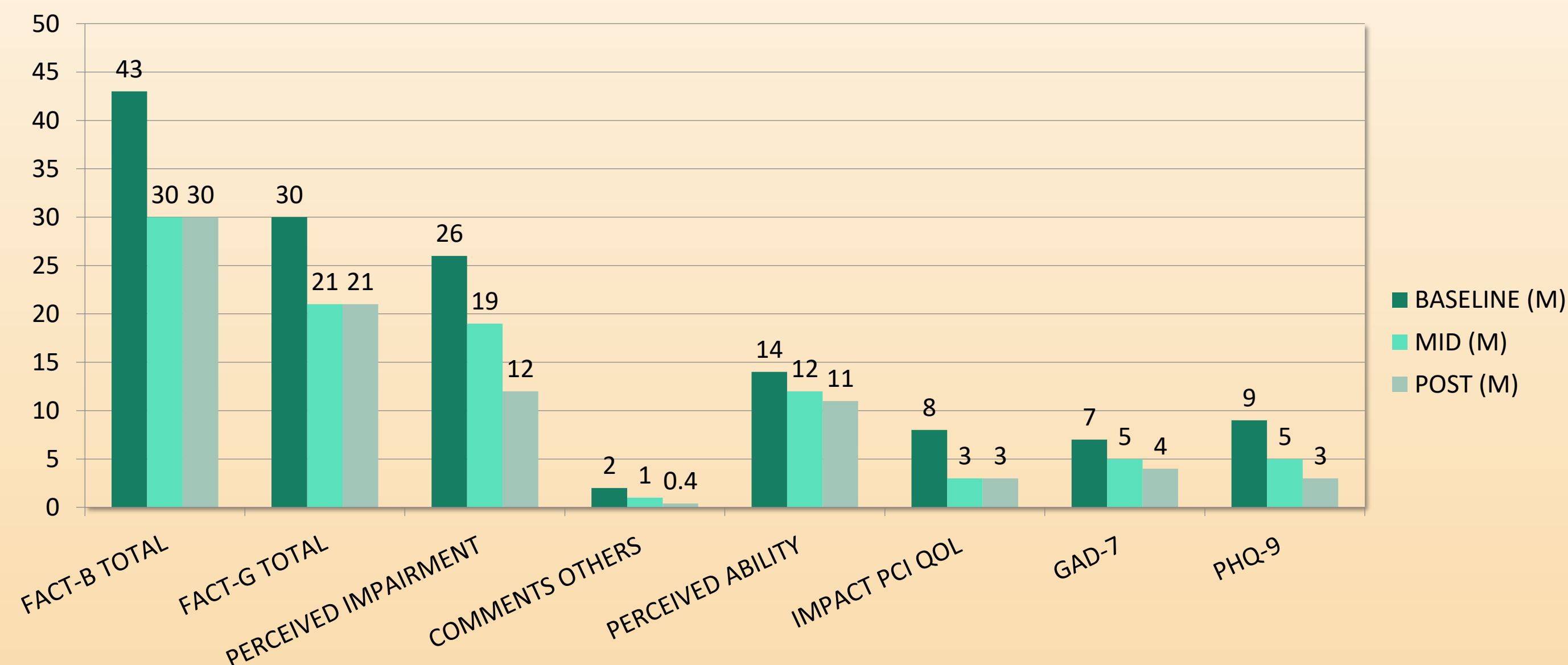
Demographics (N=6)

Country of Origin	(N)
United States	5
Canada	1
Ethnicity	
Hispanic or Latino	4
Non-Hispanic	2
Education	
Bachelors Degree	3
Master's Degree	3
Relationship Status	
Married	4
In A Relationship	2

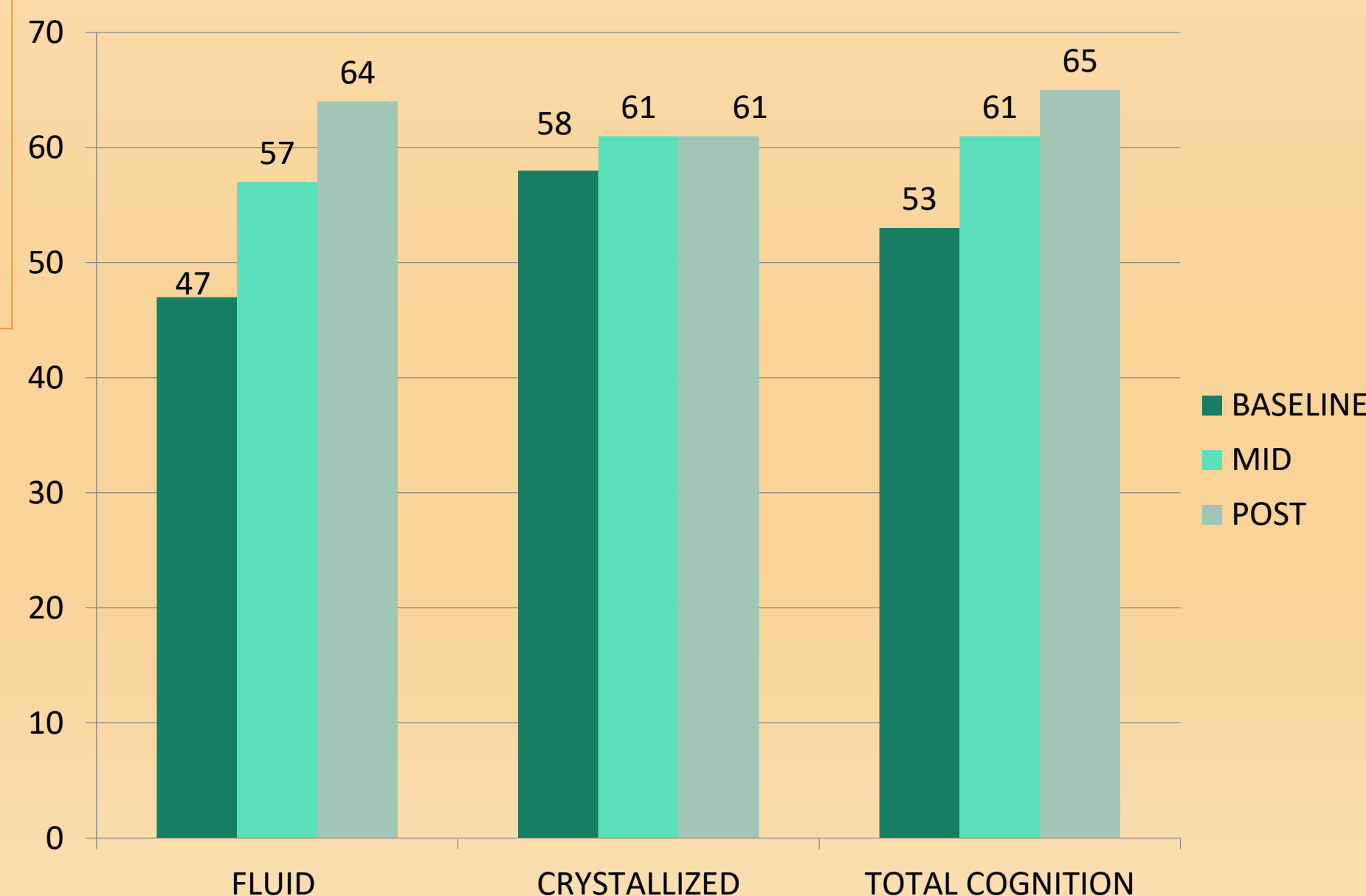
Results

- Participants rated the program as either good (60%) or outstanding (40%).
- Factors that facilitated practice included enjoying the music they played (100%), being motivated to learn (60%), feeling successful at playing (60%), and noticing improvement in cognitive function (60%)
- Most participants indicated that it was somewhat (60%) or very (20%) easy to attend.

Psychosocial and Self-Report Results



NIH-Toolbox Cognition Battery Results



Conclusions

- Study found the IPI intervention was feasible and may be helpful for managing chemo-brain symptoms in survivors.
- Future studies should examine intervention efficacy in a larger sample and further explore the psychosocial impact of chemo-brain.

References

1. Janelains, M.C., Kesler, S.R., Ahles, T.A., & Morrow, G.R. (2014). Prevalence, mechanisms, and management of cancer-related cognitive impairment. *International Review of Psychiatry*, 26 (1), 102–113. doi:10.3109/09540261.2013.864260.
2. Bugos, J.A., Perlstein, W.M., McCrae, C.S., Brophy, T.S., & Bedenbaugh, P.H. (2007) Individualized piano instruction enhances executive functioning and working memory in older adults. *Aging & Mental Health*, 11 (4), 464-471.