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Less Pain

THERAPEUTIC VIBRATION PILOT STUDY REDUCES FALLS AND IMPROVES MOBILITY AND CONFIDENCE IN RESIDENTS WITH DEMENTIA

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Author(s) Disclosures
Jeff Leismer is the Founder and CEO of VibeTech and inventor of the VibeTech technology. Deb Jacoby is now retired from Rocky Knoll and has no financial interest in the research performed.

Objective
To study the effects of a seated therapeutic vibration system as an exercise alternative to accommodate the cognitive and physical function needs of memory care residents living with dementia.

Design
Baseline fall data and measures of strength and mobility were tracked in 6 memory care residents over a 3-month period followed by a 3-month intervention period.

ROCKY KNOLL
HEALTH CARE CENTER

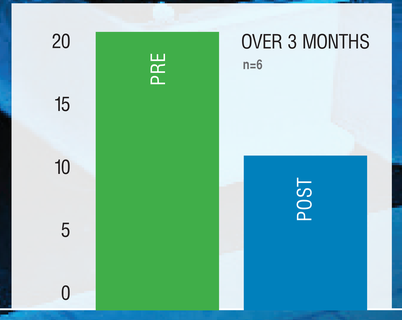
Setting
Research was performed in the memory care unit at Rocky Knoll Health Care Center in Plymouth, WI.

Participants
Study participants included 6 memory care residents (all wheelchair dependent) who experienced a decrease in mobility and an increase in falls.

Interventions
Each resident received 10-minute treatments ~2x/week for 12-weeks consisting of therapeutic vibration plus isometric leg presses performed on a VibeTech 1 rehabilitation system (VibeTech – Sheboygan, Wisconsin).

Main Outcome Measure(s)
The primary outcome was the number of falls occurring during baseline and intervention periods. Treatment notes recorded comments on mood, increased leg sensation and improvements on ability to transfer or ambulate with assistance.

Results
Participants fell a total of 20 times during the baseline period and 11 times during the intervention period, representing a 45% reduction in the total number of falls while receiving VibeTech treatments. One participant went from being wheelchair bound to walking independently using a wheeled walker.

Conclusions
This pilot study demonstrated compelling implications for the use of seated therapeutic vibration to reduce falls in memory care residents. Future studies will include larger sample sizes and will incorporate new technologies translated from these findings.

45% REDUCTION IN FALLS