Personalized Music Therapy for Patients with Dementia

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Introduction

Neuropsychiatric symptoms of dementia have important implications for patient, caregiver, and healthcare costs. Recently, personalized music therapy (PMT) has displayed effectiveness as a safe, inexpensive, and non-pharmaceutical treatment option for dementia.

Past research suggests promise for this therapeutic measure. However, a review of this research reveals high variation pertaining to severity of dementia/cognitive impairment, the often unstandardized constructs across studies, and the prevalence of infrequent listening periods considered sufficient for therapy.

Methods

Implementation of PMT Program
- 10 residents were selected by the administrator.
- Staff were trained in the daily distribution and upkeep of the music devices.
- Preferences were determined through questionnaires and phone interviews with family, and by observing residents’ reactions in pre-music interactions.
- Devices were purchased, labeled, loaded with a personalized playlist, and stored in a secure location.

Maintaining Project
- Weekly visits gauged and documented responses.
- As preferences became more evident, playlists were modified accordingly.
- Music library expanded as participants were added to the program.

Evaluation Methods
- Long term outcomes are being measured using a simple rating scale reflecting any mood and behavior improvements as well as any changes to staff workload.
- Qualitative data regarding resident responses were assembled to justify further expansion.
- Further implementation data was compiled to standardize and guide additional PMT programs in Durham.

Community Involvement

Eno Pointe Assisted Living resides in North Durham and has approximately 74 residents with memory impairment. Unlike many private local communities, residents at Eno are primarily supported by limited federal funding.

The participants at Eno have varying degrees of dementia and have emotional or behavioral symptoms judged to be amenable to the intervention by the facility administrator. While medical students implemented the project, opportunities exist for undergraduates at Duke, as well as community volunteers.

Residents

- Across levels of dementia, residents showed signs of song recognition
  - singing,
  - dancing,
  - smiling,
  - gesticulating,
  - foot tapping, and
  - engaging with visitors
- iPod shuffles and headphones were easy to use and did not bother residents
- Some residents showed initial resistance or difficulty adapting to the devices, but only one has yet to adjust to the program
- Likes and dislikes were expressed verbally or non-verbally based on song or music genre, allowing for playlist optimization

Staff Quotes:
- “That’s a real great idea you guys have.”
- “The iPods have been a huge help in calming residents during our busiest times.”
- “She’s usually ready to break out of here.”

Results

Discussion

Our experience supports PMT as an effective and relatively inexpensive therapy for dementia patients in assisted living centers, with notably reduced agitation and resistance to care. Many displays of emotion (dancing, smiling, singing) occurred in patients relatively unresponsive to other stimuli like TV and direct conversation. Enthusiastic staff acceptance of the program provides convincing evidence for its utility in caring for challenging behaviors.

Factors that can interrupt extended listening
- imperfect playlists,
- accidentally pushing pause, or
- laying down with headphones.

Precautions for lost or stolen devices
- storage in locked medicine rooms and
- daily retrieval of devices.

Long term changes in memory and behavior have yet to be determined, but present enjoyment of PMT supports continued use.

Conclusions

- Personalized music can reawaken a memory impaired person’s spirit and energy
- Staff confirm PMT eases daily workload and resident management
- PMT does not appear successful at all times in every patient, but is a reasonable first-line intervention for all patients
- Program design allows students in a volunteer capacity to implement PMT programs at local living centers, while utilizing staff participation for regular distribution of devices

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