INDIVIDUALIZED MUSIC IN PERSONS WITH ADRD

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E&D Online Course

Prevalence of Alzheimer’s Disease

Estimated 5.2 million Americans with AD*

U.S. has an ethnically diverse population

*Alzheimer’s Association (2014)
Prevalence of Agitation in ADRD

- As high as 90% (Fernández, Gobartt, Balaña, the COOPERA Study Group, 2010).
- Community-dwelling persons with AD: 67.5% of the time (Tractenberg, Weiner, & Thal, 2002).

Agitation

“An inappropriate verbal, vocal, or motor activity that is not explained by needs or confusion per se” (Cohen-Mansfield & Billig, 1986, p. 712)

Agitation

- Quality of life (Légar et al., 2002 Samus, et al., 2005; Sloane, et al., 2004)
- Interferes with care delivery and social interaction (Légar et al., 2002, Samus, et al., 2005; Sloane, et al., 2004).
- Causes an increase in falls (Marx, Cohen-Mansfield, & Werner, 1990)
- Interferes with onset and duration of sleep (Cohen-Mansfield & Marx, 1995; Cohen-Mansfield, Werner, & Freedman, 1995; McCurry, Gibbons, Logsdon, & Teri, 2004; Rose et al., 2011)
- A major source of stress to staff in LTCFs (Brodaty et al., 2003).
Purpose

There is growing recognition for the identification and testing of non-pharmacological interventions for the management of agitation in ethnically diverse populations.

Evidence-Based Protocol: Individualized Music for Persons with Dementia (5th Edition) by Linda A Gerdner

Mid-Range Theory of Individualized Music

Cognitive Impairment → Lowered Stress Threshold → Agitation → Decreased Agitation


Progressively lowered stress threshold in persons with ADRD.

Figure 2. Effects of stress during a 24-hour day in the person with ADRD.


Individualized Music Defined

Music that has been integrated into the person’s life and is based on the person’s individual preference.

[Gerndt, 1992]

Individualized Music

- Persons with dementia, such as Alzheimer’s disease, are able to process music long after their ability to process the spoken word.
- Cognitive impairment is associated with loss of short-term memory. Long-term memory remains intact into the advanced phases of the disease process.
- Music elicits memory.
- Music that elicits memories of positive feelings will have soothing effect.
- Changes focus to an interpretable stimulus.
- Reduce anxiety and agitation

[Gerndt, 1997]
Timing

Optimal effectiveness is achieved by implementing prior to the patient’s ‘peak level of agitation’

Monitor the patient over several days to determine any possible temporal patterning. For example, does the person usually begin showing signs of agitation during mid-afternoon.

The prescribed time of intervention should precede this identified time by approx. 30 minutes.

Gerdner (1996, updated 2013)

Physiological Cause of Agitation

- Agitation may have a physiological cause (i.e., pain, infection). If a physiological cause is suspected a physician should be notified. appropriate medical attention.

- Individualized music may be used to supplement medical care but not replace it.

Assessment of Personal Music Preference (Gerdner, Hartsock, & Buckwalter, 2000)

Designed to obtain details on the:

- resident’s specific music preference
- importance of music during independent living
- Consider the importance of ethnic heritage in the selection of music
- Completed by knowledgeable family member if degree cognitive impairment prevents the resident from providing this information
Intervention Protocol

- Use a CD player, iPod, or MP3 player.
- Play music at a prescribed time for a minimum of 30 minutes daily and as needed.
- Set volume at an appropriate level.

Evaluation of the Intervention

- Assess need and appropriateness for headphones.
- Conduct ongoing assessment of patient’s response to music.
- Monitor other patient’s in the immediate environment. Remember what is pleasing to one person may be irritating to another.
Adverse Response

- If the agitation becomes more pronounced - stop the music.
- Reassess music preference with patient or family member
- Provide alternative music selection on the following day
- If patient responses adversely to the second selection, discontinue the intervention

In the Beginning...

Woman with Czech Heritage

- White widowed woman, age 89 years
- Probable Alzheimer’s disease
- Daughter worked full-time

Baseline

- Low stimulus room in an adult day care center under supervision of staff
- Flat affect
- Paced to and from door
- “I want to go home, I want to go home”
- She provided no coherent response to any attempts at communication.
Individualized Music

- Two days per week, 30 minutes per session. 15 sessions
- Smiled at onset of hearing the music.
- On average, danced for approximately 11 – 14 minutes
- She hummed to exact rhythm of the melody
- “This is fun” (three separate occasions)
- Tapped hand on arm of chair in rhythm to music
- Sang along with the Prune Song and At the Spring Waltz (sung in Czech) – didn’t miss a word
- “That was fun!”

A Taste of Czech Heritage
Case Study: Mexican American Man with Probable Alzheimer’s Disease


*Case example included in this slide presentation with written permission from the publisher*

**Background**

Mr. Hernandez was an 83-year old widowed male, diagnosed 5 years prior and was residing in a long-term care facility. Global Deterioration Scale score = 6.

![Figure 1. Mexican American Man](image-url)
Baseline (Anecdotal Notes)

Mr. Hernandez was non-ambulatory. Would either be lying in bed or sitting in wheelchair.
- Repeatedly, reached and grasped at the air.
- Attempted to get out of wheelchair.
- Intermittently called out: “Come here,” “I can’t get up,” “hey,” “help, help”
- Rocked back and forth in wheelchair.
- “I want book.” Given magazine, tear pages
- Propelling self in wheelchair to others’ bedrooms, then would leave
- Tried to climb out of bed

Mexican American (various artists)

GUITARRAS MEXICANAS

Figure 1. Mexican American Man

![Figure 1: Mexican American Man]
Individually Music

- Sitting in W/C, eyes closed, appeared to be listening to the music
- Smiling
- "Are you having fun"
- "I like music"
- Humming softly

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Figure 1. Mexican American Man

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Italian American

African Americans in Arkansas

Implementation and Evaluation by Staff and Family


CNA Interviews

- “It [music] calmed them down.”
- “They were more cooperative - instead of fighting”
- “When a patient started to cry, I did about 5 minutes of the music—turn the music on and they sang along”
- “She just loves to listen to that music.”
Family Interviews

- Family: “In the last month … there seems to be less incidents in which she is agitated...The nurses tell me she’s done well with it [music]. It seems to me … it’s working”
- Family: “She listened to the music and that relaxed her. I think she was more in touch with reality and what was around her.”
- Family: “She seemed to calm down when they put it [music] on and she seemed to enjoy it. When she gets anxious she gets confused. When I turn the music on she pretty well gets rid of the anxiety.

Meaningful Interaction

Family: “When I turn the music on, the elderly ladies come in Mom’s room and they’ll sit on the bed. Mom doesn’t interact a whole lot any more. However, 2 or 3 times I’ve walked in and there was mom’s roommate and 2 or 3 other little ladies sitting on the bed...and they’re actually talking cause they are listening to the music. They love Frank Sinatra...so I think that helps her socialization as well.”

Family: “We discussed the music and...who was singing...she was very free.”

Feasibility

CNA: “It made my day a lot easier, cause when they get agitated you just put the music on and they would sit there and listen,”
CNA: “I enjoyed playing it [music], it helps me too.”
CNA: “I can see the improvement with the music, making them happy and that makes me happy.”
CNA: “It helped them and it was something we could do together.”
CNA: “some [family] brought extra tapes...so I can play it for them.”
Feasibility (continued)

CNA: Sometimes we were short staffed—that’s about it.”

CNA: “They [family] enjoyed and they also go along with the music and take over if they see I’m busy.”

Conclusion

- Positive response served as facilitator [86.3% compliance]
- Facilitated a collaborative relationship between staff and family

Clinical Application and Research

- United States
- Great Britain
- South Korea
- Taiwan
- Sweden
- France
- Japan
- Norway
Downloadable Resources

- Evidence-based protocol available as download.
- Quick Reference Guide
- Assessment of preferred music questionnaire (patient and family version)

In Summary...

Individualized music intervention utilizes family expertise to promote humanistic, individualized care in an effort to enhance quality of life.

It uses a holistic approach that incorporates the person’s ethnic identity.

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