Training: Evidence-Based Protocol for Individualized Music in Persons with Dementia

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Prevalence of Alzheimer’s Disease

• 5.5 Million Americans

• Often accompanied by behavioral symptoms, such as agitation (Fernnandez, Gobartt, Balana, & the COOPERA Study Group 2010; 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)
Cognitive Impairment → Lowered Stress Threshold → Agitation → Decreased Agitation

Mid-Range Theory of Individualized Music Intervention

Individualized Music Intervention

Figure 1. 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. If cognitive impairment prevents the person from articulating personal preference, selection may be made by a knowledgeable family member or other.

(Gerdner, 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

(Gerdner, 1997)
Figure 3. Planned activity levels for the person with chronic confusion: ADRD.

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)
Propositions of the Mid-Range Theory of IMIA

• The temporal patterning of agitated behaviors in persons with ADRD is often predictable based on application of the PLST Model (Hall & Buckwalter, 1987).

• Music evokes an individualized emotional response within the listener, that is associated with personal memories.

• Response to personal memory is enhanced when music selection is based on the patients past personal preference.

• The presentation of an individualized music intervention alleviates agitation in the person with ADRD.

• There is a positive relationship between the degree of significance that music had in the person’s life prior to the onset of cognitive impairment and the effectiveness of the intervention.

• Individualized music intervention is most effective when the intervention is implemented approximately 30 minutes prior to the peak level of agitation.
Assessment of Agitation

• Determine the time of onset and potential external or internal causes that may underlie these behaviors

• If a physiological cause is suspected (i.e., pain, infection) the physician should be contacted for appropriate medical attention.
Sources Stress in Persons with ADRD

• Fatigue
• Change of environment, caregiver, or routine
• Misleading or inappropriate stimulus levels
• Affective response to perception of loss
• Internal or external demands that exceed functional capacity
• Physical stressors (i.e. pain, discomfort, infection)

(Hall & Buckwalter, 1987; Hall, Gerdner, Zwygart-Staffacher, & Buckwalter, 1995)
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
ASSESSMENT OF PERSONAL MUSIC PREFERENCE (FAMILY VERSION)

Music is often a very important part of people's lives. Please complete the questionnaire based on your knowledge of your family member's music preference.

Before illness, how important a role did music play in his/her life?

- 1. Very Important
- 2. Moderately Important
- 3. Slightly Important
- 4. Not Important

Does/did he/she play a musical instrument?
If yes, please specify (examples: piano, guitar).

Does/did he/she enjoy singing?
If yes, please specify (examples: around-the-house, church choir).

Does/did he/she enjoy dancing?
If yes, please specify (examples: attended dance lessons, participated in dance contests).

The following is a list of different types of music. Please indicate the individual's three (3) most favorite types with 1 being the most favorite, 2 the next, and 3 the third favorite.

- 1. Country and Western
- 2. Classical
- 3. Spiritual/Religious
- 4. Big Band/Swing
- 5. Folk
- 6. Blues
- 7. Jazz
- 8. Rock and Roll
- 9. Easy Listening
- 10. Cultural or Ethnic Specific (examples: Czech polkas, Ravi Shankar Indian sitar)
- 11. Other:

Please put a check (✓) beside the most correct choice to the following questions.

What form does your favorite music take?
- 1. Vocal
- 2. Instrumental
- 3. Both

Please identify specific songs/selections which make you feel happy.

Please identify specific artist(s)/performer(s) that you enjoy listening to the most.

Please identify specific albums, audio-cassette tapes, or compact discs contained in your personal music library.
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
As Needed

• When patient first begins exhibiting signs of anxiety/agitation assess for possible internal and external stressors.

• Eliminate potential stressors.

• Play music when the patient first begins exhibiting signs of anxiety.

Gerdner (1996, updated 2013)
Assessment 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
Key Elements to Success

• Identification of specific music preference
• Optimal effectiveness is achieved by implementing individualized music prior to the peak level of agitation.
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”
• No coherent response to any attempts at communication.
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)
Conclusions

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

Holistic approach that incorporated the person’s ethnic identity in care.