

4-14-2017

## Reconnecting Veiled Minds Through Music

Carolyn A. Scharf  
*Grand Valley State University*

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Reconnecting Veiled Minds Through Music

Carolyn A. Scharf, Undergraduate BSN Scholar

Advisor: Dr. Cynthia Beel-Bates PhD, RN, FGSA

April 14, 2017

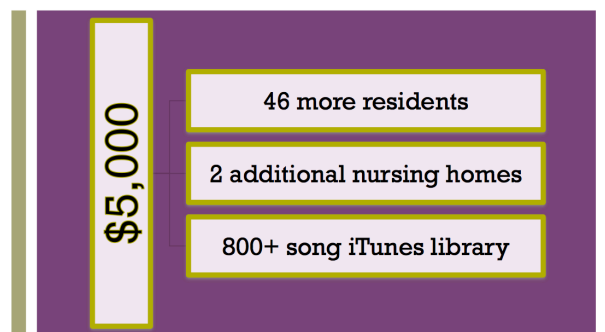
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**Grand Valley State University 5x5 Competition Presentation**

October 25, 2016

*Reconnecting Lost Minds Through Music*



### Art and Science of Aging Conference Presentation

February 17, 2017

#### *Reconnecting Veiled Minds Through Music*



Cynthia Beel-Bates, PhD, RN, FGSA  
 Carolyn Scharf, GVSN

#### **+ Objectives**

- Describe the non-profit Music and Memories organization and program
- Demonstrate knowledge about the impact of music on the behavioral and psychological symptoms of dementia
- Understand their own connection to music and memories
- Identify at least one way they might contribute to the social movement in Grand Rapids and West Michigan



**+ Objective 1: Describe the non-profit Music and Memories organization and program**



**+ Music and Memory Care Communities**

“The Care Community is a fantastic resource for Music & Memory Certified Care Organizations. From topic calls on equipment storage to detailed music assessment forms, Care Community contains resources that will help build the foundation of a successful Music & Memory program”

—Amanda Davidson, the Music and Memory Coordinator for the California Association of Health Facilities



**+ Contact Information**

Music and Memory  
 160 First Street  
 PO Box 590  
 Mineola, NY 11501

[www.musicandmemory.org](http://www.musicandmemory.org)



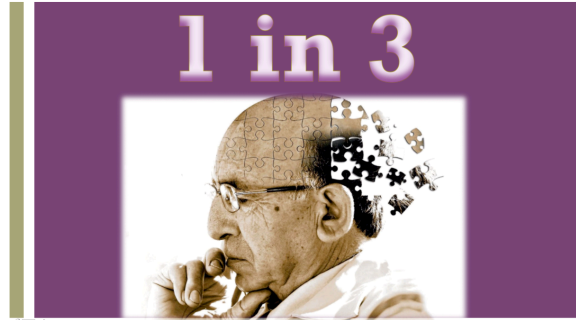
**Meet Henry**



[Henry Comes Alive](#)



**Objective 2:**  
Demonstrate knowledge  
about the impact of music on the  
behavioral and psychological  
symptoms of dementia



**Why is Music  
Everywhere in the Brain?**

**+ Objective 3: Understand their  
own connection to music and  
memories**



**Objective 4: Identify at least one way they  
might contribute to the social movement  
in Grand Rapids and West Michigan**



**Philanthropy Comes Alive  
through Partnership**




**Grand Valley State University Student Scholars Day and Grand Valley State University  
Civic Engagement Showcase**

April 12 and April 13, 2017

*Reconnecting Veiled Minds Through Music: A Quantitative Analysis*

## Reconnecting Veiled Minds Through Music

Carolyn A. Scharf, Undergraduate BSN Scholar

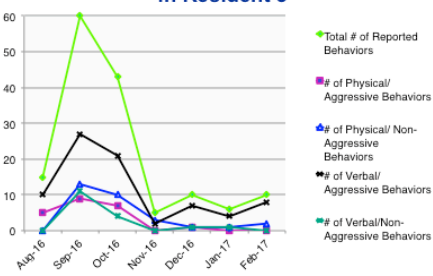


**Problem**  
Determine the psychological impact music has on frequency of behaviors and symptoms as well as the frequency and dose of antipsychotic medications in individuals with dementia and associated disorders.

**Background**  
Music and Memory Inc., a non-profit organization, has created a successful non-pharmacological intervention for nursing home residents with cognitive impairments that requires an iPod shuffle, headphones and an individualized music playlist for each resident. It requires staff training and is used throughout the world to improve the quality of life for nursing home residents.

**Methods**  
**Design:** Quantitative analysis of objective assessment information recorded over nine-months, examining trends in mood, behaviors, depression scales and antipsychotic medication dosing in each resident.  
**Setting:** Allendale Nursing and Rehabilitation Center in Allendale, MI.  
**Sample:** 12 residents, age range: 60-92 years old  
**Instruments:**  
**Patient Health Questionnaire (PHQ-9):** Assesses degree of depression severity. Higher score = > severity of depression  
**Cohen-Mansfield Agitation Inventory (C-MAI):** Agitation assessment based 4 subscales of specifically defined observed behaviors:  
• Physical/aggressive, physical/non-aggressive behaviors, verbal/aggressive, verbal/non-aggressive

**Frequency of C-MAI Reported Behaviors in Resident 5**



**Conclusions**  
Individualized music reduces depressive symptoms, decreases frequency of C-MAI behaviors and can lead to reductions in antipsychotic medications.  
Barriers to the analysis included a lack of measurement depicting how often residents listened to their personalized music.

**Results**

**PHQ-9**

- 7 residents experienced no change in depressive symptoms
- 5 residents experienced a reduction in depressive symptoms

**C-MAI**

Total reported behaviors per month

- **Sept-16:** 96, **Feb-17:** 61

Average reported behaviors per month

- **Sept-16:** 19.2, **Feb-17:** 5.01

Average physical/aggressive behaviors per month

- **Sept-16:** 1.8, **Feb-17:** 0.25

Average physical/non-aggressive behaviors per month

- **Sept-16:** 4.6, **Feb-17:** 0.5

Average verbal/aggressive behaviors per month

- **Sept-16:** 7.4, **Feb-17:** 3.6

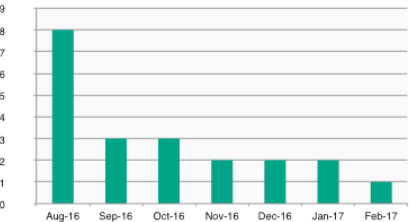
Average verbal/non-aggressive behaviors per month

- **Sept-16:** 5.4, **Feb-17:** 0.667

**Medication reduction**


- 3 residents experienced reduction in antianxiety, antidepressant or antipsychotic medications

**PHQ-9 Depression Scores in Resident 5**



**Implications for Nursing Practice**

Providing personalized music as a non-pharmacological intervention creates a more safe, social and pleasant work and living environment for both staff and residents while improving quality of life.



Advisor: Dr. Cynthia Beel-Bates, PhD, RN, FGSA

This project has been approved by Grand Valley State University's HRRC (17-09-H)

Community Partner: Allendale Nursing and Rehabilitation Center (Allendale, MI)

## SWOT Analysis

## Reconnecting Veiled Minds Through Music Honors Project Summary

April 14, 2017

Participating in an independent study opportunity throughout my senior year of nursing school was quite a blessing in disguise. Not only did I develop a much deeper passion for persons with dementia and improving their quality of life, but I also gained a deeper confidence in myself academically. An independent study pushes you to be self guided in your work as well as continuing to stay motivated, as there are a number of obstacles to face along the way. The end product of my honors senior project was a successful representation of the impact music has on persons with dementia, depression, mental illnesses or anxiety living in nursing homes.

**Strengths**

One of the most important strengths of my honors senior project were the different opportunities I was able to take advantage of throughout all of the stages of the project over the past school year. I jumped into the music and memory program in October 2016 when we competed in the Grand Valley State University 5x5 competition to win \$5,000 to contribute to our non-profit program. While we did not win, it gave me my first chance to be a healthcare professional advocating for persons with dementia and a program to improve the quality of life of nursing home residents. From there, Dr. Beel-Bates gave me an additional opportunity in February 2017 to present about music and memory at Allendale Nursing with her at the Art and Science of Aging Conference at Grand Valley State University. Both of these presentations allowed me to practice and improve my public speaking skills that would be necessary later in the semester when presenting on the final product of my quantitative analysis at Student Scholars Day and the Civic Engagement Showcase. All of the different presentations I did over the past



six months helped me in my professional life when I was applying to graduate school and RN positions. I was able to eloquently speak about a program I am engaged in and passionate about-giving organizations a good sense of my work ethic and commitment to advancing the nursing profession.

Another strength I discovered while completing my honors senior project was the open line of communication between my project advisor and myself. While the quantitative aspect of the project was truly my own, the guidance and constructive criticism from my advisor allowed me to look at the bigger picture and impact of the project. Dr. Beel-Bates and I communicated in person as well as actively over e-mail, updating on the progress of the project and any issues along the way. Her continuous feedback and support throughout each leg of the project only improved the overall outcome. Our trusted relationship with one another is one I hope to mimic in my professional nursing career.

### **Weaknesses**

Weaknesses I encountered over the course of the project included ineffective communication with our community partner Allendale Nursing and Rehabilitation Center. There are multiple aspects, agendas and priorities that play into this relationship. The communication between the staff at the nursing home and myself somewhat deteriorated as the semester continued on due to our differences in prioritization of the music and memory program and potentially the expectations we both had. Allendale Nursing has been renovating their facility over the past year and additionally recently underwent a state survey. Due to additional burdens at the facility, the music and memory program no longer became as important as other aspects of daily functioning. Monthly assessments were behind by three months at one point. This breakdown in the system was as equally my fault as it was the staff's because I did not stay as

persistent as I should have been regarding completing the assessments in a timely manner. Had I done so, the data might have been of better quality, as both partners would continue to meet each other's expectations.

Another weakness I encountered during data collection was the lack of differences in assessment data for each music and memory participant from month to month. It seemed as though the data was copied and pasted continually, which did not provide useful information when assessing the overall success of the program as well as the progress of each participant. These actions by nursing home staff could even question the overall validity of my data and analysis as well as their quality improvement initiative within the facility.

### **Opportunities**

There are many opportunities for growth within my honors senior project and the music and memory program. As an individual student and a partner in the relationship between the Kirkhof College of Nursing and Allendale Nursing and Rehab, I retrospectively learned that I was not as assertive as I could have been in the partnership. I did not hold the nursing home staff accountable for collecting assessment information until near the end of my project- which may have skewed the results if the assessments were thrown together. I also did not communicate in person enough and relied on electronic forms of communication too often during correspondence for the sake of ease of both Allendale Nursing staff and myself. Next time I build a relationship with another organization, I will work to maintain open lines of communication so there is not a sense of animosity between the two partners of the program. I hope that the relationship between Allendale Nursing and KCON can move past the current barriers and continue to grow for the sake of the music and memory participants.

Another important opportunity to consider for strengthening the music and memory program at Allendale Nursing and Rehab would be to include more thorough assessments. While the data provided over the 9 months of the program ended up showing progress and results, more in depth assessments could have shown critical changes in each participant over time that could be shown to impact their plan of care. The most important assessment data that is missing is how often each participant listens to music. This is a key factor in the success of a music and memory program and should be recorded with all other monthly assessment information to track progress both clinically and from the quality improvement aspect of Allendale Nursing and Rehab.

### **Threats**

Threats to the health of the music and memory program include lack of support physically and monetarily. The music and memory program at Allendale Nursing can only be sustainable if a balanced relationship is established between the staff, KCON and a strong volunteer base. The lack of priority the music and memory program faces is concerning as it has only been established for nine months. It is important for me to update the staff and directors of the facility with the information I collected over this past semester and gather a sense of what step is next- and if they are even interested in continuing on. I hope to also help to establish a sustained relationship for the volunteer aspect of the program in my sorority with our vice president of philanthropy. Hopefully a fresh start in the fall semester will inspire more members to become involved.

The music and memory program can only continue to grow within Allendale Nursing and Rehab and to other nursing homes in West Michigan with additional funding. The original grant money is running out and we do not have any prospective forms of funding to use to develop a new and sustainable program in another organization. For this music and memory initiative to

spread throughout West Michigan, we must either gain additional support from our current relationships and partnering organizations (KCON SNA, Sigma Kappa, etc.) or find new organizations to partner with us to spread this intervention.