Music May Improve Quality of Life for Alzheimer’s Patients

Alzheimer’s Sufferers are Alive Inside: Watching clips from the movie *Alive Inside*, which won an Audience Award at the 2014 Sundance Film Festival, can be an inspiring experience. It shows examples of seemingly depressed and withdrawn Alzheimer’s patients, who appear almost catatonic, transform into people who are singing with enjoyment and even dancing, when they listen to songs from their past. These amazing transformations show that those who suffer from memory problems can still experience pleasure. Until a cure can be found, it offers some hope for a seemingly hopeless disease.

The National Music & Memory Program: *Alive Inside* follows social worker Dan Cohen as he brings personalized music to patients in nursing homes. Dan founded the national non-profit Music & Memory based on the idea that if he ended up in a nursing home, he wanted to be able to listen to his favorite songs from the 60s. He realized it would be easy to make personalized playlists available to individual nursing home residents, after hearing a news story about the popularity of iPods. These portable music players (such as the one shown to the left) can store hundreds of songs bought and downloaded via the internet. However, Dan found no institutions in the US that were using them with patients. Interest in providing personalized music increased greatly, though, after a video clip from *Alive Inside* went viral. It featured Henry, a nursing home resident who reawakens after receiving an iPod. The non-profit has since helped bring personalized music to hundreds of facilities in the US & Canada.

In Wisconsin: Wisconsin was one of the first states to join the national effort, when its Dept. of Health Services launched the *Wisconsin Music & Memory Initiative*. It has so far funded training for employees in 250 Wisconsin nursing homes. Training includes information on creating customized playlists, as well as an overview of neuroscience research on the brain’s response to music.

Why Music? Although those with Alzheimer’s can have difficulty making new memories, they often retain old ones, including fond memories linked to the music of their youth. Music seems to use parts of the brain that aren’t damaged by Alzheimer’s. Providing personalized music is a relatively simple step that can be part of improving nursing home care for all our elders.

Resources:
- The video clip of Henry that went viral: youtube.com/watch?v=fyZQf0p73QM
- The *Alive Inside* movie website: www.aliveinside.us
- Dan Cohen’s national non-profit: MusicandMemory.org
- Music & Memory Initiative in Wisconsin: www.dhs.wisconsin.gov/music-memory
- UW Center for Aging Research & Education: www.son.wisc.edu/CARE.htm

Communities can participate by:
- Hosting drives to collect iPods & musical gift cards for nursing homes.
- Libraries can make collections of downloadable music available.
- Schools can allow students to help set up personalized playlists as part of community service requirements.

At UW-Madison: The Center for Aging Research & Education (CARE), directed by IOA Affiliate & Professor, Barb Bowers, organized a screening of *Alive Inside* during Careers in Aging Week last Spring. CARE has also hosted drives to collect iPods, and has placed students in Music & Memory programs in local nursing homes, as part of community service courses led by Prof. Bowers & Prof. Lisa Bratzke.

When Alzheimer’s patients have access to familiar music from their past, it may help:
- reduce agitation, sundowning, and resistance to care
- reduce the need for anti-psychotic & anti-anxiety medications
- encourage interaction with others, improving group environments and family visits
- provide an enjoyable, fulfilling activity.

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A Scientific Look at the Problems of Inner City Blacks

Stories of shootings and other serious problems relating to African Americans living in urban areas have received repeated media attention of late. These recurrent problems are faced by those often living in disadvantaged, decaying neighborhoods, where opportunities in life are inadequate. The MIDUS study (Mid-life in the U.S.) has included a large, diverse-aged sample of African Americans from Milwaukee, some of whom live in difficult neighborhoods. Several publications from this work have emerged showing links between the chronic stressors associated with living in segregated, inner city areas and health and well-being.

Living in Urban Milwaukee: Links to Health & Well-being Among African Americans

Stress & Smoking Rates  
(Slopen et al., 2012)

Blacks in Milwaukee were asked whether they experienced stress in eleven areas, including:

- neighborhood stress (not feeling safe)
- stress at work (risk of accidents)
- feelings of inequality (reduced chances of finding a good job)
- financial stress (difficulty paying bills)

Those experiencing high levels of stress in five or more areas were four times more likely to be smokers compared to those reporting no high stressors. In Milwaukee, 28% were smokers, compared to the national average of 21% for all Blacks.

Stress & Aging  
(Fuller-Rowell et al., 2013)

How quickly one’s heart rate can change when reacting to challenging situations is one sign of having a healthy heart and nervous system. Heart rate reactivity generally declines with age, but this analysis showed that the decline among Milwaukee African Americans occurred at significantly earlier ages compared to Whites in the study. This difference may reflect exposure to the chronic stresses of urban neighborhoods, which have been implicated in accelerated aging.

Anxiety & Risk of Type 2 Diabetes  
(Tsenkova et al., 2012)

High levels of anxiety (focusing on disappointments, worrying a lot) was associated with a dysregulation in glucose (sugar) metabolism, which can lead to Type 2 diabetes. This pattern, however, was evident only for Black women in the MIDUS biomarker sample. This vulnerability is linked to prior studies showing they have double the risk of developing Type 2 diabetes as compared to White women.

Discrimination & Physical Health  
(Warren-Findlow et al., 2013)

This study of Milwaukee Blacks looked at self-reported physical health, as well as reports of several types of daily discrimination (such as being treated with less courtesy or respect in a restaurant). Results showed that each additional type of discrimination reported was associated with 9% lower odds of reporting good physical health.

Anger & Poor Health  
(Boylan et al., 2015)

Among Whites, more education typically predicts better health. However, the story appears to be more complicated for African Americans, particularly if another factor is brought into consideration: the emotion of anger. Anger is known to be a common response to inequality, such as...
that those of lower socioeconomic status (with less education) report higher levels of anger expression (Boylan & Ryff, 2013); adding to the problem, this prior study showed that high levels of anger expression exacerbated the link between low educational standing and increased levels of inflammatory markers (which are implicated in a number of health problems, such as heart disease, cancer, and arthritis). When the interplay of education, anger, and inflammation was examined among Blacks, the pattern of effect changed: namely, it was among college educated Blacks who reported high levels of anger expression that elevated inflammatory markers were observed.

These results are part of an emerging collection of new scientific findings suggesting that Blacks may not be reaping the same health benefits associated with higher educational attainment as have been observed for Whites.

**Discrimination & Social Relationships**
(Doyle & Molix, 2014)

This study showed that among Blacks in Milwaukee, reporting more experiences of daily discrimination (e.g., being treated as if you are not smart) was associated with having more strain in relationships with friends, family, and spouses. This association between discrimination and relationship strain seemed to operate through different pathways:

- Experiencing discrimination predicted feeling more stress (being less able to control life’s irritations), which in turn was linked to having greater relationship strain.
- Feeling more stress was also associated with venting emotions and denying problems, which in turn predicted more relationship strain.
- Experiencing discrimination was also associated with increased physical inflammation (which is associated with poor health), which in turn predicted more relationship strain.

These findings indicate that racial prejudice may have social as well as physical health consequences. Relatedly, other studies have shown that African Americans are less likely to become married than Whites, and further, once they are married they report greater dissatisfaction and are at a greater risk for divorce.

In the background of these findings is the reality that Milwaukee is one of the most residentially segregated cities in America. As such, it is an environment where Blacks may be exposed to high levels of chronic stressors (poverty, discrimination, unsafe neighborhoods, lack of access to resources). Evidence from MIDUS suggests these realities may be taking a toll on their health and well-being. The relevance of such findings is heightened by growing media reports about problems of Black Americans across diverse U.S. cities.

Further, the dire life circumstances of some of these individuals have likely been exacerbated by the economic recession. MIDUS is beginning to look at whether the burdens of the economic downturn are being disproportionately borne by those who were already vulnerable before the recession. Taken together, these diverse lines of inquiry are sharpening awareness of the problems facing inner city Blacks. The ultimate objective of such research is to underscore the importance of finding better solutions to problems of inequality in America so that everyone, regardless of race or location, has access to the resources and opportunities needed to live meaningful and healthy lives.
Anyone who stops learning is old, whether at twenty or eighty.
— Henry Ford