# Effects of Music Therapy in Awaken Memories and Boosting Brain Activities on Patients Suffering From Alzheimer and Dementia

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## **Background and Significance**

Alzheimer and Dementia represent some of the existing and most pressing global health problems based on the rising dominance rate and the constraint of medical implications (Fang, Ye, Huangfu & Calimag, 2017). Alzheimer as one of the most experienced types of dementia illness is usually characterized by advancing cognitive impairment and memory loss. This can result in severe effects by forcing the affected persons to lose their general capabilities to accomplish some given responsibilities. Alzheimer is categorized as thaw most severe health problem of the modern society for humanity. With the rising aging populace, the general number of individuals suffering from Alzheimer and other different types of Dementia is growing in a rather drastic way. Based on a report released in 2013 it has been established that the number of those affected by Alzheimer alone globally is beyond 35 million a level that is projected to exceed by three times by the year 2050 (Fang, Ye, Huangfu & Calimag, 2017).

Despite the fact that the issue has emerged to be a major one it is rather saddening that there lack effective drugs for the ailment. It cannot be denied that Alzheimer and other Dementias have proved to be a major challenge not only based on the lack of effective clinical intervention strategies but also based on its physical, psychological and financial effects. To begin with, Alzheimer is psychologically demanding both for the patients as well as those individuals that surround the patients which might incorporate friends and families (Fang, Ye, Huangfu & Calimag, 2017). In that when an individual suffers from memory loss and minimal brain activity this implies that they can no longer be able to accomplish their daily operations as they were used to which thus implies that they have completely lost independence. In this context, some members of their families are forced to abandon their career and their social lives in order to take care of these patients. The ailment creates depression for everyone based on the fact that their loved ones are no longer reliable. Most of those that are affected are the financial providers in their respective families implying that the financial generations in this families are affected as well thus resulting in increased dependability. Treating Alzheimer is expensive and the treatment is for the long run based on the fact that there are no effective clinical interventions (Simmons-Stern, Budson & Ally, 2010).

This usually leaves most families drained completely in regard to finances thus creating, even more, heighten psychological trauma. It depresses the patients based on their inability to accomplish given tasks or even to be independent similar to what they were mainly used to before (Simmons-Stern, Budson & Ally, 2010). MT remains to be one of the most essential methods for mental, Neuropsychological as well as social behavioral shaping in the sector Dementia which is mainly associated with the least expenses. It necessitates practice, investigations as well as clinical research. It has been demonstrated by most investigators that MT is highly useful and beneficial to enhance memory, boost memory and decrease syndromes neuropsychiatric syndromes that are associated with Alzheimer. Based on the absenteeism of related side implications and suitability in applying to Alzheimer's patients as well as their care providers, Music Therapy has proved to be the most realistic and feasible alternative for intervention (Simmons-Stern, Budson & Ally, 2010).

In considerations of the general effects of the ailment, it has been established that non-pharmaceutical strategies such as MT, physical activities, dieting and others help in preventing the advancement of the illnesses and creating relief for those affected by the severe symptoms (Satoh et al, 2014). In this consequence there is a need to apply non-pharmacological interventions approaches as the mode of lowering the issues. Music Therapy (MT) being one of the Pharmacological approaches with a wide history of utilization and suitable application to Dementia and Alzheimer's patients. It has been demonstrated by a number of studies

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that MT has the capability of awakening memories and activating the brain particularly for the patients suffering from long, mild and severe memory loss (Simmons-Stern, Budson & Ally, 2010). MT has proved to be an effective intervention approach for patients suffering from Alzheimer and thus there is a need to apply the approach earliest possible for more desirable results. This report is aimed at analyzing the available literature to establish evidence in regard to the effects of Music Therapy in awakening memories and boosting brain operations on patients suffering from Alzheimer and Dementia.

# **PICO Question**

**Research Question**: In patients with mild to severe Alzheimer and Dementia (P), what are the effects of using Music Therapy (I) in comparison to clinical drugs administration (C) to decrease the symptoms of Alzheimer and Dementia without elevating the effects?

# **Search Strategy and Results**

Literature Review was mainly conducted by searching for related articles in regard to the issue of Alzheimer and music therapy effects from PubMed database. PubMed was the chosen database based on its recognition and well-acknowledged history of offering relevant and scholarly sources in the context of biomedical (Satoh et al, 2014). The database was used based on its friendly features that facilitated the effective search of articles ranging from clinical, evidence-based on interventional articles options. In addition, the database is free to use and most of these articles can easily be traced to the online platform. The segmentation of the PICO research question into major key terms provided a more extensive platform for searching for more articles. In that, the source offered a number of articles that are directly related to Alzheimer, Dementia treatment and the effectiveness of Music Therapy in regard to issues related to memory loss and cognitive decline, especially amongst the aging populace. PubMed held both basic as well as advanced references searches that permitted the searching of journals to be classified in regard to date as well as relevance. The search began with the application of the key terms such as cognitive decline, Dementia, Alzheimer, Memory boost and so on. The search then evolved to opting for the English language selecting the publication date within the last ten years which was later narrowed to the exact topics on the articles that had been found (Bugos, 2014). Grouping was done on some key terms as well as acquiring the most useful articles that are necessitated for reviewing of literature. For example some terms such as awakening memories as well as boosting brain activities were utilized in combined way in order to establish the general effects of Music therapy in regard to treating Alzheimer as well as ensuring that the symptoms do not prolong or advance to the rate that they affect the general wellness of the patients (Bugos, 2014). The combination of terms results in discovering more relevant, updated and useful articles addressing the subject.

### **Glossary of Terms**

## **Definition of Key Terms:**

**Alzheimer's disease (AD):** Is a kind of dementia that leads to issues of memory, thoughts as well as behavior and advances with time.

**Music Therapy (MT):** Music Therapy refers to a non-verbal strategy that incorporates the use of musical instruments as a treatment intervention with the objective of achieving therapeutic aims professionally.

**Cognition Impairment:** This refers to when an individual has trouble recalling, learning fresh things, focusing or making decisions in regard to their daily lives.

**Non-pharmacological intervention:** refers to some sort of treatment that seeks to create relief from any form of suffering or pain without the use of medical intervention.

**Clinical intervention:** the use of medicines or any other approved medical based treatment option to create health relief.

**Syndrome:** A set of symptoms that constantly happen in correspondence or in relation to a given health condition such as symptoms.

#### Discovery

In general, the investigation mainly advocated for the general application of Music Therapy intervention strategy awakening memory and boosting cognitive activities amongst individuals with Alzheimer and Dementia (Bugos, 2014). It was discovered that the intervention approach should mainly be applied in the earliest possible stages of treatment or after one has been diagnosed with the Dementia issues. In addition, for the aging populace, the intervention can be conducted early because they are highly vulnerable to the illness

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and cognitive decline. In that, the intervention is not only useful in creating relief for those that have been affected but as well as those that are at risk (Satoh et al, 2014). This implies that it can be utilized in preventing the rise or prevalence of the symptoms that permits the progressiveness of memory loss and behavioral changes due to the incapability to thinking right as caused by Alzheimer. Age and lifestyle factors primarily play a critical role in resulting in Alzheimer.

## **Summary of Evidence**

Based on the acquired evidence in the literature review, it is evident that Music Therapy as a Non-pharmacological intervention method plays a positive role in the awakening of individuals memories and boosting cognitive activities amongst individuals suffering from Dementia. However, for Music Therapy intervention to generate positive results, it should be applied in early Alzheimer's stages or when one approaches old age as a way of preventing the symptoms from progressing and offering relief to the patients. Music has always been known as a form of relief for most illnesses but the exact effect on patients suffering from Alzheimer and Dementia has been established in the recent (Baeyens et al, 2016). Music therapy which works by playing selected songs that are familiar to the patients have the ability of awakening forgotten memories as well as increasing the general performance of the brain. This is mainly achieved for a number of reasons. In that according to Ye, Huangfu & Calimag, (2017) Music Therapy has the highest capability of inducing emotions which in turn recreates memories. In that, for those suffering from Alzheimer, it holds the capability of creating life even in instances when they feel nothing. Through combining music therapy with daily operations Alzheimer patients can be able to create rhythm that assists in regaining memories of their usual activities thus enhancing their cognitive capability with time.

In addition, it is only music and gratitude that are the left abilities among individuals suffering from Dementia and Alzheimer. In this context, music becomes the most suitable strategy of recreating memories and working beyond the illness to reaching the inner person (Baeyens et al, 2016). In that Music Therapy has the capability of generating emotions as well as closer relationships with reality. In that, for the patients suffering from the inability to make decisions or think in the right manner, it is usually very challenging for them to share their feelings with those taking care of them based on the sensation that they are no longer independent. In this nature music normally increases their sharing ability not verbally but mainly physically. It is through music that dancing is enhanced as well as the general ability to hug or even kiss as a form of gratitude. This normally creates a feeling of security as well as retrieving individual's memories in general. This will create even closer relationships with those close which in turn increases expressiveness and arouses the rising of memories (Baeyens et al, 2016).

More so, singing more than anything else is very engaging. In that, with singing, this helps in exercising the brain which by increasing its activities will gain more ability to learn things and storing memories with time. In that visual music, therapy is even more evoking given that it helps in stimulating an individual's cognitive functions as exercising is one of the most authoritative tools that lead to development (Baeyens et al, 2016). Music also has the capability of changing an individual's mood, increase the ability to coping with pressure and stress and thus evoke positive interactions. In this context, when the cognitive functioning is enhanced this helps in sustaining positive behaviors and responses which are fully supported by rightful thinking in general. This is based on the fact that music necessitates little to zero cognitive processing and thus while listening and singing Musical Therapy does not necessitate the cognitive ability or remembering or thinking that is absent among dementia and Alzheimer patients. In other words, it is evident that music helps patients in connecting with the real world which in turn increases their general capability of remembering different things and gaining the capability to think well (Lynnerup & Sørensen, 2014).

### **Translation**

The recommendations for practice were mainly acquired from the evidence that Music Therapy as an intervention approach helps in the awakening of memories and boosting brains activities amongst persons suffering from Alzheimer and Dementia. This intervention program mainly advocated for the use of Non-pharmacological intervention for such patients based on the ground that there are no effective clinical strategies in existence. The use of the Benefit intervention method will be useful in supporting the developed plan. In that, given the status that there has not been an identified effective clinical approach in dealing with

Dementia, it is worth noting that the use of Non-pharmacological intervention is the most appropriate based on the associated benefits (Matthews, 2015).

In that music, therapy is more cost efficient and convenient to all patients. To begin with, Dementia is currently categorized as a global health problem that needs to be addressed by any possible means. Given that clinical interventions will take more time to develop it is rather evident that the use of musical therapy should be applied. In that, it is associated with fewer expenses both for the hospitals and patients (Lynnerup & Sørensen, 2014). In this context, it can be applied during the earliest stages to prevent the rise of the general syndrome as well as providing relief to those that have already been affected. Based on the convenience of the approach it can basically be applied based on the flexibility of the patients or on their customized schedules. This implies that when one approaches old age they can be advised to depend on the approach based on the fact that they are vulnerable to such attacks (Wagner, Lee & Mason, 2016). Besides that unlike other forms of treatments, the approach is more effective in creating positive relationships with those that surround as well as arousing emotions which in turn results in the rise of memories and the capability to concentrate (Baeyens et al, 2016). In that, unlike other interventions, the approach is an easy one that mainly requires the application of zero skills or abilities but leads to unending benefits in reference to recalling and boosting cognitive abilities.

## **Implementation**

The practice will mainly be implemented mainly by relying on the presentation of evidence grounded procedures at the weekly meetings. There is a necessity to create awareness and familiarity among nurses as an opportunity for educating them in order to enhance patient care in general and increase understanding. Nurses are the targeted populace for this practice because they mainly interact with patients suffering from memory loss or Dementia. The offered recommendations are mainly aimed at improving the overall care as provided to all patients. During the implementation phase, a number of factors such as benefits, compatibility, complexity, and the cost will be considered. The management will play part in the allocation of the necessary resources in ensuring that the process is not affected. Patient factors ranging from perception and compliance will also be accounted and different measures that seek to eliminate resistance and encourage adherence and acknowledgment will be evaluated.

#### **Evaluation**

The intended outcome of the research was to awaken memory and boost cognitive activities among patients suffering from Alzheimer and Dementia. This study was therefore aimed at increasing awareness and knowledge among nurses with respect to the effectiveness of music therapy use among dementia patients without affecting their perceptions while safeguarding their financial and psychological wellness. In that, the intervention was established to be effective in regard to saving costs as well as reducing the general effects of dementia syndrome. Data regarding the outcome of the investigation would then be shown via the use of tables and figures. The gathered information would be essential in making relevant and informed decisions in regard to the most suitable intervention. These outcomes would be evaluated on monthly basis to establish the effectiveness of the recommendations.

## **Implications for Practice and Future Research**

Further investigation is necessary given that nursing interventions are always limited to regional settings. This research was mainly objected to evaluating the literature revolving the effectiveness of Music Therapy in regard to awakening memories and boosting cognitive activities amongst Alzheimer and Dementia patients. Nurses are required to understand the essence of music in retrieving memories and arousing emotions that in turn increases the functioning of the brain. Based on the effects of dementia on an individual's wellness, nurses are required to be vigilant in regard to applying the most suitable approaches. This study, therefore, provides healthcare practitioners with detailed evidence that can be utilized for planning for enhanced patient care. When recommendations are applied as suggested this will lead to improved outcomes, reduced healthcare expenses, and health stability.

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