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The Efficacy of Music Therapy in Rehabilitation

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THE EFFICACY OF MUSIC THERAPY IN REHABILITATION

by

Archie D. Thompson

B.A., Southern Illinois University, 2015

A Research Paper

Submitted in Partial Fulfillment of the Requirements for the

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RESEARCH PAPER APPROVAL

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in the field of Rehabilitation Counseling

Approved by:

Dr. William Crimando

Graduate School

Southern Illinois University Carbondale

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CHAPTER I

INTRODUCTION

The problem is concerned with investigating the lack of knowledge in the effectiveness of music therapy as a rehabilitation therapy. Furthermore, this study is an investigation of why the lack of knowledge exists in music therapy. Through this research I seek to improve the methods being used to get the desired therapy results in a variety of circumstances that are caused by but not limited to impairments, injuries and illnesses. The intention of this study is to examine the differences in treatment plans for those who need or benefit from this form of interactive therapy that address their psychological desideratum McConnell, Graham-Wisener, et al., 2016. Newborns (FMC, 2017) to end of life care patients (McConnell, Scott, & Porter, 2016) have used and seen considerable improvements in rehabilitation therapeutic results by using music therapy. According to Blackburn and Bradshaw (2014), the lack of knowledge still exists in that there are millions of patients like those whom have dementia that could benefit from music therapy. Music therapy has shown to reduce depression, anxiety and agitated behavior disorders, but further research is needed (Blackburn & Bradshaw, 2014). Shuman, Kennedy, DeWitt, Edulblute, and Wamboldt (2016) asserted that in the mental health services, empirical evidence does not exist for music therapy that bolster care for children and adolescents.

The focus of this study is on the lack of knowledge in using music therapy as a palliative therapy. How reducing this lack of knowledge can benefit individuals that use music therapy as a rehabilitation therapy is an additional focus of this paper's research. The methods used to gain needed knowledge, instrumentation, design, and procedures (McConnell et al., 2016) will be discussed in detail. The significance of this research is to help find and verify needed types of music therapies for therapist to have and use at their disposal to help relieve or alleviate

unfavorable symptoms. Persons with disruptive behaviors and anxiety disorders are in need of a cost effective, noninvasive (medically or with physical restraint), and a successfully tested therapeutic approach to reduce unwanted symptoms (Keenan & Keithley, 2015). There are voluminous amounts of cases where music therapy is used as treatment and ample documentation to investigate for this study, according to Keenan and Keithley (2015).

Music therapy has played an important emerging role in palliative care for some 30 plus years now (Clements-Cortés, 2016). Staff members, caregivers, and patients accept music therapy's varied applications, but some reviews and reports reveal a need for more research and controlled clinical trials (Warth et al., 2015). Music therapy can have long term positive effects without adverse side effects (Keenan & Keithley, 2015). This aspect alone highlights how important this therapy is in not adding to unwanted or unneeded complications like allergic reactions from medications. Many disabling diseases, mental, and physical injuries are shown to benefit from music therapy and will be discussed in more detail in this study.

The Efficacy of Music Therapy in Rehabilitation literature review focuses on the major topics as a whole and any relevant subtopics which interrelate. I am presenting only factual information in a systematic, logical way. This information is integrated in such a way as to directly address the purpose of the paper. For the most part the literature reviewed is current, within the past five years, except in the case of presentations of a historical perspective or when there are classic articles important to the understanding of the topic. Music therapy is defined as both active and passive music therapy for rehabilitation clients, active music therapy (creative) is writing/producing music, singing and/or playing a musical instrument and passive music therapy is listening (receptive), and reacting to music.

The Purpose of the Study

The purpose of this study is to research why and where there is a lack of knowledge about music therapy in palliative care. An additional aim in this research is to gain empirical knowledge about various music therapy treatment plans and algorithms that are discussed currently in literature. It is important to inform health professionals, patients, their families, loved ones and other shareholders of the alternative therapies that may be available and their effectiveness as a palliative resource that may be used with other treatments. Clarifying research norms and procedures in implementing studies and in discerning data is a final aim of this paper.

In this study, I propose to examine end-of -life issues that may influence palliative care efficacy. The study will cite rules, standards, and legislation that impact the quality of care as established by government, medical organizations, and insurance providers concerning music therapy.

Critical analysis of said literature will be accomplished by investigation of

- a. the researched ways to gain more knowledge about music therapy intervention.
- b. which types of diagnosis seem to benefit the most from music therapy intervention?
- c. how does music therapy co-exist with other therapies or interventions?
- d. what empirical evidence supports music therapy as a successful palliative therapy?

The Local and National Need for the Study

The need to find a painless, cost effective, little to no side effect, evidence-based treatment to improve the quality of life and relieve suffering to those that have life threatening, incurable illnesses or injuries (Warth et al, 2015) is essential. Palliative music therapy's objective is to help relieve physical symptoms (general discomfort, headaches, breathing difficulties, etc.), and to positively address social, spiritual, and psychological needs of patients and their loved

ones (Warth et al, 2015). The barriers that exist in local, state, and national regulations stem from lack of information, the prioritization of private and government funding, political expediency, and time constraints concerning the implementation of policies and procedures. For example, the American Speech-Language-Hearing Association (ASHA) is one of several agencies that has opposed state music therapy licensing legislation on the grounds that the scope of practice was too large (Deppe, 2013). This lack of support for music therapy is not unique in that there are not enough evidence-based recommendations against or in favor of funding music therapy (Warth et al., 2015).

Locally in rural Southern Illinois as with the rest of the United States, a great percentage of citizens, particularly our elderly, depend on Medicare (Centers for Medicare and Medicaid Services, 2017). To become universally accepted by providers, certifying and licensing organizations, educational facilities, insurance companies, Medicaid and Medicare, there must be an ample amount of evidence-based knowledge to support music therapy's methods and usefulness locally, at the state level and nationwide (Warth et al, 2015).

Significance of the Problem

The significance of this study is to shed light on the need for music therapy as a successful means of palliative care. There is adequate documentation that consistently demonstrates the effectiveness of the therapeutic approaches, but the need for more research and clinical trials are required to justify investment and universal implementation of palliative music therapy's diverse techniques. This research paper demonstrates the need to develop tailored music therapy approaches that address individual preferences and to identify alternate resources that expand methods used in the therapeutic process.

Of the 325,000,000 Americans, 20,000,000 are known to suffer from moderate or severe depression in a recent two-week period of time (Center for Disease Control and Prevention, 2017). According to the CDC, over 5 million people in the United States have Alzheimer's, the most common type of dementia, and that number is expected to rise three-fold by 2050 (CDC, 2017). Although there is a lack of knowledge concerning empirical evidence for music therapy, as a rehabilitation therapy, this type of treatment for depression (Carr, O'Kelly, Sandford, & Priebe, 2017) and dementia (Matthews, 2015) has shown encouraging results. Alzheimer's and depression statistics represent a large portion in sheer numbers of conditions that may benefit from gained knowledge about music therapy. Recent data and documentation from numerous studies provide evidence of improved outcomes responses from clients and patients.

Research Paper Limitations

This music therapy research paper is limited by the time frame given to accomplish the task of finding pertinent, current information to reliably analyze the efficacy of music therapy in rehabilitation. This research paper can also be limited by knowledge; what information is available, how to use the information, and how it is tailored to be beneficial for each client or therapeutic approach. There are cultural considerations that may influence the effectiveness of music therapy (Brunt, 2017), knowledge in multicultural values and personal norms that differ for each client is sure to pose its difficulties. It has been suggested that a client-centered approach is preferable to a one-size-fits-all method when using music therapy approaches (Bahcivan, 2017), these differing norms and personal considerations may cause some difficulties in researching this topic and in defining universal approaches. Another limitation may be perceptions by institutions, medical professionals, and some clients alike, in that for a treatment to be effective it should be expensive or involve complicated interventions (Deas, 2017). These

preconceived notions may limit my research data by eliminating less expensive more inclusive music therapy approaches that may be as effective and useful as a therapeutic approach. Also, more complicated interventions may need more complicated research methods or at least additional information and time to consider or delineate relevant factors.

Limitations in gaining research information about evidence-based music therapy as a palliative care treatment may include challenges that incorporate characteristics which utilize study designs including randomized control trials, controlled clinical trials, etc. as stated before in this study, this type of research information is in short supply. Research that contain large enough sample sizes, contrasting definitions of therapeutic interventions and procedures, a comparator, defined outcomes, and experimental mortality (Warth et al., 2015) may present additional impediments due to the fluidity and amounts of information. Universally accepted standards and research ethics that demonstrate accountability and legal prescript as it pertains to palliative music therapy is a prerequisite (Black, 2013). This universal acceptance may be difficult to attain for research purposes because the ethics and standards may differ by region and national borders.

CHAPTER II

LITERATURE REVIEW

Development of Palliative Music Therapy

The literature begins by explaining a brief history of the efficacy and development of palliative music therapy. The literature notes that medicine and music have been linked together for many millennia, the relationship has been documented since ancient Egypt through present day (Clements-Cortés, 2016). The recent development of palliative music therapy primarily stems from descriptions by therapist explaining their techniques and approaches in the literature and according to Clements-Cortés (2016). The diverse uses of music therapy help to provide a framework to better understand how these approaches have evolved in later years.

In the 1940s advocates for music therapy and educational programs began to emerge, one of these educators was E. Thayer Gaston. He has been called “the father of music therapy,” for furthering the cause of music therapy from an educational and organizational standpoint (American Music Therapy Association, 2018). It has been noted that after World War II musicians played music in veteran’s hospitals to increase morale. A pioneering facility in Montreal, Canada at the Royal Victoria hospital provided palliative music therapy (Clements-Cortés, 2016) beginning in the early 1980s. Shortly after the Royal Victoria hospital began providing palliative based music therapy in New York City, a symposium was held where 40 palliative music therapists who primarily treated the terminally ill reviewed their work. This proved to be a launching pad for research in the late 20th Century (Clements-Cortés, 2016).

Clements-Cortés (2016) explained music therapy as it is used in palliative or end-of -life cases has four main categories: receptive, creative, recreative, or combined. Receptive music therapy may include song selection by the patient or the therapist. Lyric analysis or discussion about the lyrics is used to establish or reestablish relationships or improve rapport. Entrainment

which is used to calm or slow down breathing and heart rates is also known as the iso-principle. Drum rhythms are used to externally synchronize the central nervous system to accomplish entrainment objectives. Another receptive music therapy, guided imagery, is used by the therapist when a description of a journey, scenery, or other imagery is utilized with music (Clements-Cortés, 2016).

Creative music therapy is making music by song writing, instrument playing, singing, or the combination of the aforementioned activities. Improvisation song writing is a very effective palliative care technique as a creative outlet, it can boost thoughts and feelings, avail opportunities to promote well-being, and provide a creative way to express emotions and validate expression (Clements-Cortés, 2016). Recreative music therapy is as simple as adding instrumentation to a piece of music or singing different words to music. Combining these approaches may serve to help the client express feelings that are needed to help them and their loved ones deal with a challenging diagnosis or symptoms.

Palliative Care and Music Therapy Organizations

There is only one organization able to certify music therapist at the national level in the United States. The Certification Board for Music Therapist (CBMT, 2017) uses its MT-BC program that the National Commission for Certifying Agencies (NCCA) has fully accredited since 1986 (CBMT, 2018). The website can answer any questions about the accreditation procedures, examinations, fact sheets or any other questions concerning music therapy.

The American Music Therapy Association (AMTA) was the result of a merger between the American Association for Music Therapy (AAMT) and the National Association for Music Therapy (NAMT) in 1998. The merger formed the largest music therapy association in the world

(AMTA, 2018). CBMT and AMTA are the two most influential music therapy organizations to date.

The National Hospice and Palliative Care Organization have been around for 40 years but physician Dame Cicely Saunders began working with terminally ill patients' decades prior in 1948 at a suburb of London (NHPCO, 2016). In 1963 she introduced specialized care at Yale University to care for dying patients, prompted by an invite from Florence Wald. Saunders gave a lecture to social workers, nurses, medical students, and clergy in 1963 about the idea of holistic hospice patient care (NHPCO, 2016). Dame Cicely Saunders, Florence Wald, and Dr. Elizabeth Kubler-Ross are three academic leaders who led the way for palliative approaches in healthcare to be widely accepted in the U.S. and worldwide. Legislation, educational resources such as research and curriculum, combined with national and international organizations are insuring better healthcare options, particularly for end-of-life care (NHPCO, 2016).

Issues Specific to Palliative Music Therapy

We must conduct a thorough investigation of existing research by using all of the analytical resources to find information at our disposal including abstracts, key words, and titles. Then an eligibility criterion is required, Patients, Interventions, Comparators, Outcomes, and Study (PICOS) designs principal or taxonomy (Warth et al., 2015) is one of the preferred methods for this paper. Patients that are considered terminally ill, hospice, or palliative care inpatients are included as participants. Interventions in this case could be the number of music therapy sessions and if live or recorded music is utilized. A comparator can be resting condition, standard care, conversation, or other controlled conditions. Outcomes include how pain perception, respiratory, and heartrate are affected. Also included in this category is the effect on dependent variables or long-term quality of life indicators like social, functional, psychological,

and spiritual needs. Examples of study designs used in palliative music therapy are randomized control trial (RCT), controlled clinical trial (CCT), and crossover techniques. How these criteria are implemented and recorded are issues that explain the paucity of studies in palliative music therapy.

Methodological Challenges

The need for controlled clinical trials in palliative music therapy is evident by how few studies have been cited as viable current research. There are several reasons that these methodological challenges exist, an example would be that very few universities and research facilities conduct and submit eligible research. Many contributors of the information that I am citing in this paper are from European countries. Not one randomized controlled trial (RCT) based on palliative music therapy, one of the most common and accepted forms of study designs has taken place in Europe (Warth et al., 2015). Insurance companies, government decision makers, and stakeholders depend on RCTs and controlled clinical trials to substantiate evidence-based practice as a rationale for funding priorities and privileges (Warth et al., 2015). T-test, control groups, Positron Emission Tomography (PET scans), Electroencephalogram (EEG), and Functional Magnetic Resonance Imaging (fMRI) are examples of tools that are used for research. Accordingly, flexibility and *a priori* (reasoning or knowledge from theoretical deduction not observation or experience) should be included and addressed in this type of research study to insure practicality and diverse details for ethical considerations. It should also be noted that both quantitative and qualitative research methods contribute to evidence-based interventions in palliative music therapy, and that mixed-method approaches may be preferred (Schmid, Rosland, von Hofacker, Hunskaar, & Bruvik, 2018).

Methods and Analytical Instruments

Over the last 20 years finding suitable methods to be used in analyzing music therapy procedures has been the focus of music therapy researchers, particularly those leading the music therapy fact-finding mission in countries like England and the United States (Gilboa, 2012). According to Gilboa (2012), examples of approaches to analyze music therapy begin with the Bruscia's Improvisational Assessment Profiles (IAP), in 1987. Gilboa explained that structural analysis, a method developed by C. A. Lee, was introduced starting in 1989 and adjusted in 1990, 1995, and 2000. Gilboa described the phenomenological method developed by Forinash and Gonzales, in 1993. He also included several microanalysis methods that were introduced by Langenburg, Frommer, and Tress to analyze specific elements music therapeutic process in 1993 (Gilboa, 2012). That year also saw the addition of the graphical notation system by Bergstrom-Neilsen that used a map-sheet to represent over a specific time period an accurate sequence of events (Gilboa, 2012). This system encourages each music therapist to use their own types of notation methods including icons and symbols to be more diverse in communicating musical occurrences during the music therapy sessions. This method established how rich and effective images can be to depict the complexity of abstract ideas, thoughts, and feelings that occur during the music therapy process.

Music Therapy Analyzing Partitura. Music Therapy Analyzing Partitura, also known as MAP, is a graphic notation system that presently shows noted potential to analyze and interpret music therapy sessions (Gilboa, 2012). According to Gilboa (2012), MAPs are a graphical code that is readily understood and can be utilized analytically by music therapists for diverse clientele. The MAP can be used for individual sessions or group sessions as a visual representation of content and context of music therapy sessions. At a glance a music therapist

can see when and what was taking place in a session at a particular time or by fragments. This record of events can be used to examine an entire course of treatment to monitor the client's interactions and responses to therapeutic interactions.

The MAP is set up similar to a music staff in that it has several horizontal lines, the top horizontal line bears the music therapist name, each of the following horizontal lines represents a client. The bottom of the staff has the minutes listed in evenly dispersed intervals to indicate the specific time that an event occurs during the session. Capital letters to indicate topics or subject matter in conversation with a dash and number following the capital letter to indicate sub-topics, continuation and cessation of each conversation. The corresponding letters with numbers are in a box below the session staff that include what was said by the letters/numbers. The legend (usually included as a bigger box located below the capital letters and numbers box) includes dashes, symbols, and icons to explain in detail what interactions are taking place during the session. The boxes with pictures (icons) represents instruments played by the client or music therapist, can also notate a communication card to initiate interaction, and indicate the length of silences, again included in the legend.

In working with a MAP there may be advantages, disadvantages, and unique challenges for the music therapist or client that occur during the process (Gilboa, 2012). Some advantages include overall perspective and clarity of the complete session. The MAP's visual element makes it an excellent device to use to compare sessions. This serves as a productive instrument to enrich the music therapist's clinical work. Because the MAP illustrates such a good representation of the interaction between the client and the music therapist, both may be able to see how they contributed to the session and how each may improve the session. Disadvantages in working with the MAP may involve technical problems or issues with software like PowerPoint or

resolution problems that take place with recorded sessions timing or making certain that certain important details are understood. Another disadvantage may be the absence of in-depth perspective that could reveal the ability to acquire the emotional aspects and little nuances of the sessions. This lack of communication perspective may be caused by how written symbols and words may not disclose accent or tone of the specified communication. For example, sometimes it is not what you say, it is how you say it.

The MAP can be delineated into three separate functions (Gilboa, 2012). The descriptive function can be used to explain what occurred in a single session or several sessions. The communicative function is used to convey information between music therapist's and other healthcare providers involved in the client's care. And the analytic function can be used to break down the contents of individual or combined sessions, and to also note subjective observations and feedback. Because this is a qualitative assessment, interpretations may vary and be subject to the music therapist's assumptions and hypotheses. After the MAP is completed the music therapist's assumptions and hypotheses can be refuted or supported in the process to improve client care, research, and data collection methods.

Ethical Considerations

Ethical guidelines can be daunting when a music therapy research project is undertaken particularly for providing evidence based results. There are ethical standards established within the profession and individual institutions require research practices to follow specific conformity concerning ethical standards (Black, 2013). There are research ethics basics that include the relationship of ethics with scientific justification; how the use of data is specified in accordance with application requirements and the ethical responsibilities of participants, procedures, and organizations according to Sarah Rose Black (2013). Depending on local, regional or national

laws and guidelines principals and concepts may have slightly different definitions. Proposal submissions to research ethical committees have added requirements that can seem like an obstruction or roadblock to research progress (Black, 2013).

Ethical concerns may exist when depriving palliative care patients' potentially useful treatments due to random group allocation (Warth et al., 2015). Ethical concerns also exist in how application of research standards of evidence-based medicine toward end of life care is performed. Differing forms of application standards is a possible contributor for the lack of quality RCT's concerning the effects of palliative music therapy (Black, 2013).

According to the universal ethical principles of Justice, Veracity, Non-Maleficence, Beneficence, and to provide informed Autonomy, it is our responsibility as healthcare providers to afford our patients the best ministrations possible. This ethical charge for the music therapist is notably important considering the palliative environment that we the therapist and more importantly our patients are faced with in their time of need.

Research Challenges

Sample sizes are a notable problem of palliative music therapy research, in that sample sets that are too small are not eligible to validate data (Warth et al., 2015). Research for this paper has found small sample sizes to be a major cause for exclusion from evidence-based music therapy. Missing data is another preeminent issue that adversely influences statistical analysis, particularly when the probability of dropping out is due to functional or physical symptoms that may prevent patients that are terminally ill from participating in research exercises (Warth et al., 2015). Eligibility criteria have explicit guidelines like patient's responsiveness, English language requirements, and if the study sample is representative or valid for the population that it is supposed to represent is suitable. Does the study take into account sensory loss, for example

levels of hearing loss which is a necessary and vital component in music therapy, medication side effects, and stages of functional loss as it pertains to a specific diagnosis?

For some diagnosis, standardized treatment plans have proven to be the best course to serve the patient's needs. Standardization is essential in describing interventions for care of patients that need palliative care and palliative music therapy is no exception. Standardized interventions and pre-determined guidelines for palliative music therapy are prerequisite for reproducibility of treatment algorithms and treatment fidelity (Wrath et al., 2015). Length and frequency of treatment is included in standardization protocol and highlights the importance of addressing this topic. This is an issue because custom-designed interventions that differ for each patient have shown to be what most studies offer as best practice in evidence-based treatment for palliative music therapy (Warth et al., 2015), maintaining protocol procedures is essential.

Controlled conditions may be another issue in delineating the impact of palliative music therapy care from other environmental influences and treatments. Controlled conditions in some form or another are crucial in all research studies. Because palliative music therapy is almost always used with other treatments to provide optimal treatment for each patient, a clear understanding of the effects of the music therapy treatments are not always clear and reproducible because additional medical treatments may alter results. Depending on local, regional, or institutional standards, controlled environmental requisites may differ from expected norms, leading to incorrect results or skewed data.

Mixed methods research presents its own unique set of challenges. Guidelines for mixed methods research require advanced levels of research investigation expertise in that it analyzes, integrates, and interprets data by use of qualitative and quantitative methods or approaches (Bradt, 2015). There are recent guidelines established for mixed methods research according to

Bradt (2015). It includes several common criteria that insure proper reporting. It must include documenting a rationale for including mixed methods research. It then should identify the designs of the mixed methods research. The procedures used in data collection and analysis of qualitative and quantitative information is to be noted. And how procedures in the integration of the different data sets is accomplished and the where the information mixing requirements occur in the research. Additional research elements may prove resourceful and may be included, for example formulation of research questions specific to qualitative, quantitative, and mixed method information gathering. Inclusion of a diagram depicting the research procedure may clarify certain elements of the documented research.

The second common criterion for proper reporting noted above is identifying the appropriate mixed methods designs utilized and employed in the study. These designs are of vital importance because each has its distinct benefit when determining order of procedural presentation and the actual results derived from the integration of the duet of data sets (Bradt, 2015). The convergent design contains concurrent and analogous assemblage of qualitative and quantitative detailed data that are displayed as side-by-side comparisons. The explanatory sequential design utilizes the quantitative data, then discusses the qualitative findings that are based off of the quantitative information to explain the quantitative results. The exploratory sequential design utilizes the qualitative data to base the quantitative data on then discuss how the qualitative results built the quantitative findings. The mixed methods intervention design is when the quantitative clinical trial is embedded with a qualitative strand, an example of this would be a randomized control trial. These are usually large amounts of information that may be assisted by displays that show data integration. When submitting mixed methods interventions in a manuscript these large amounts of data and information that may include analysis and

procedure guidelines for integration of both qualitative and quantitative studies. The result of a study of this size may involve space restrictions thus becoming an additional challenge faced by the researcher.

Palliative Music Approaches

This section begins with training staff to administer individualized music for patients with life ending or threatening illnesses (Gallagher, 2011). Music therapy is an evidence-based procedure that is carried out by certified Music Therapist professionals to accomplish therapeutic outcomes utilizing distinct forms of musical approaches. There is emerging evidence that Individual Customized Music preferences IM, an uncertified practice, can have positive results for ailments including dementia when certain protocols are followed by uncertified personnel as pointed out by Gallagher (2011). We know that the CDC states that there is over 5 million people with Alzheimer's in the United States a common form of dementia (CDC, 2017a), which means that we have an exceptional need for caregivers to implement effective palliative care for those with dementia. Caregivers can be anyone whom administers care, from family members to professional staff at a nursing home or hospital setting.

According to Gallagher (2011), Linda Gerdner gives step-by-step instructions in her evidence-based protocol to train caregivers to properly use IM. The four steps in Gerdner's protocol: Identifying the patient's preferred type of music by using input from those whom are familiar with the client, anticipate any potential distractions or physical requirements, play music at a comfortable level, evaluate their reactions, and observe the patient's responses to stop the intervention if a negative reaction occurs (Gallagher, 2011). Although there is a minimal expenditure of time and resources, these four steps in the protocol produces positive outcomes for the patient when administered by dementia caregivers.

Oral traditions, more precisely songs in Africa are proven useful in HIV/AIDS prevention efforts (Bekalu & Eggermont, 2015). Behavioral change communication (BCC) is a worldwide strategy used to reduce educational deficits and stigma associated with lethal or terminal illnesses as in HIV/AIDS. According to Bekalu and Eggermont (2015), there are various reasons why this may be the case: First, the level of the individual's literacy and cultural diversity does not preclude the impact of the song's message. Second, it has been documented that behavior change can be influenced by entertainment formats that include educational messages, modeling and imitation. Third, research has shown that repetition and frequent exposure make complex messages take hold and be remembered. And fourth, songs can be imbedded into soundtracks of other types of entertainment, such as commercials, soap-opera, or drama to influence the public with everyday interactive.

A certified music therapist (CMT) has a much higher standard of expectations where music administration is concerned, licensing by the CBMT is required to provide certified music therapy. A certified music therapist is able to influence a client's behavior through therapeutic approaches. A certified palliative music therapist must begin by choosing the appropriate music at the appropriate times (Drăgulin & Constatin, 2016), needless to say, getting the music right is a crucial step in music therapy. There are guidelines in application of MT. The therapist should gain as much data about the client and their medical, social, and personal needs as possible. Being careful with the words in the choice of songs is as important as understanding the role of the music in the therapeutic context. Noting that the preferred music may not be what the client needs, the therapist may specify what is best for the client (Drăgulin & Constatin, 2016).

Music Therapy and Pathosis

Music therapy has been shown to have a restorative influence on social agency, to enable the patient with dementia to have more meaningful social connections (Matthews, 2015). In case after case, the positive response to music by those with dementia is undeniable, especially to songs from their past in which they are familiar. These are patients that at times are unresponsive to known acquaintances or do not recognize close family members, but when the music starts, emotions and memories ignite smiles and rhythmic movements, the energy may last for hours after the music has stopped (Matthews, 2015). In patients with Alzheimer's music may be a positive stimulus for differing cognitive facets in patients with this debilitating condition (Cabedo-Mas & Moliner-Urdiales, 2014). Listening to recorded music or singing or playing an instrument can demonstrate positive benefits for dementia patients that are cared for in the home setting or in a formal care residence (Matthews, 2015).

Cancer is still a leading cause of death in the United States (CDC, 2018). Recent breakthroughs in neurobiology may provide a clearer understanding in how the brain responds to music-based-interventions and the impact of these interventions on anxiety, pain, mood, and QOL in cancer patients (Archie, Bruera, & Cohen, 2013). Advanced technology has demonstrated that music causes the Striatal system to release dopamine thus causing pleasurable reactions along with increased amounts endogenous opioid receptors in the brain that enhances pain relief (Archie et al., 2013). To be able to lower the need for anxiolytics or analgesics, by even a slight amount can still have significant clinical implications. If for no other reason than to reduce the amount of pharmaceutical pain relievers needed that can affect the renal system causing toxicity long term and the amount of time needed for certain anxiety, pain, or mood-altering drugs to take effect (Archie et al., 2013).

Prolonged disorders of consciousness (PDOC) can derive from an acquired brain injury. According to Magee and O'Kelly (2015), research has determined music therapy's auditory modality as being an ideally suited treatment, when applied by trained music therapist as a flexible and sensitive approach to treat PDOC. It is well fitted to provide assessment of awareness for patients with PDOC (Magee & O'Kelly, 2015). Research in this area included EEG topography to visualize brain activity during music therapy along with other neuroimaging devices, observations of reactions to contrasting stimuli, and making sure pre and post stimulus baseline behaviors were monitored (Magee & O'Kelly, 2015). This approach is best utilized in combination with behavioral and the aforementioned neuroimaging procedures as pointed out by Magee and O'Kelly.

The cardiovascular patient needing palliative care can benefit from music therapy because of an unmentioned skill possessed by competent certified music therapists, the ability to use verbal and non-verbal communication effectively as to help the patient interact in prosocial behaviors that enhances vagal modulation (Warth et al., 2016). Because music can have a soothing effect, it calms the patient's nerves (anxiety) and heartrate. This aids in better rest and relaxation which results in less stress to cardiac muscle which may enhance muscle repair and improved blood flow (Warth et al., 2016).

Music Therapy and Cultural Norms

There are some countries where the elderly population as a percentage is growing at a particularly rapid rate; South Korea is one of those countries (Im & Lee, 2014). South Korea as opposed to the United States has a more collectivist view of how to care for their elderly. It is in South Korea's interest to research illnesses that disproportionately affect the elderly or has unique consequences for the elderly community. Information in this paper is retrieved from a

recent study done in South Korea (Im & Lee, 2014). Depression is one such affliction that requires a thoughtful, unique, holistic, noninvasive, approach to mental health care for the elderly or institutionalized patient in need of palliative care. A study was conducted using a paired t-test and was used to determine how depression was affected in the control group and the group receiving music therapy (Im & Lee, 2014). Results showed a distinct difference before and after participants received music therapy, depression scores decreased, oppressed feelings were released, and expression of feelings were enhanced (Im & Lee, 2014).

Cultural and Racial Considerations in Music Therapy

It has been validated by evidenced-based research that music therapy has a positive impact on the quality of life of the patient and stakeholders. To be effective for each patient, personal and cultural considerations must be taken into account. Individual cultural experiences and judgements differ; therefore, it is important to identify relevant barriers, cultural interpretations, and norms and values associated with the therapeutic process used for each patient in each instance (Bahcivan, 2017). Bahcivan's research (2017) suggest that palliative care therapist should utilize a client-centered approach to best serve their client's needs and to help eliminate cultural or cross-cultural bias.

There are differences in how different cultures utilize and access healthcare. Socioeconomic status, preferences and long-standing behaviors may account for lower use of health insurance by African-Americans for example (Brunt, 2017). Although Medicare eligibility begins when a person turns 65 and can provide insurance for those who were previously uninsured, even with the same coverage cultural and racial dissimilarities in use persist (Brunt, 2017). Resource constraints, and mistrust in the healthcare system due to experiences with inferior care can all contribute to cultural or racial healthcare disparities and is noted by research

done by Christopher S. Brunt (2017). Minorities purchase less supplemental insurance historically (Brunt, 2017). These types of insurance plans sometimes cover palliative therapies and procedures. I would like to note here that some studies on the subject of racial disparity in healthcare may be biased because the lower SES of some African-Americans qualify them as dual eligible Medicaid recipients thereby eliminating them from the sample which introduced the possible bias by underrepresentation (Brunt, 2017).

Palliative Care Provider's Perspectives

In the United States our health care system is based on being and staying a profit center, that is in business to generate revenue. By comparison the palliative care clinician's primary goal is not to improve their profit margin but seeks to improve the quality of life for patients with serious illnesses and their loved ones (Cassel, Bowman, Rogers, Spragens, & Meier, 2018). For the palliative care provider, it is more important to ensure that their patient is able to express amenable emotions, help families find closure and peace upon end of life, and support staff mood and resilience (McConnell, Graham-Wisener, et al., 2016). According to Cassel et al. (2018), despite powerful corporate incentives to gain larger profit margins, a majority of Americans with life-threatening diseases that are hospitalized have access to palliative care services. Cassel et al. also stated that the Center to Advance Palliative Care has a focused goal to provide palliative care outside the hospital and into community settings and homes in the near future.

The palliative care provider must manage stress levels caused by the palliative care environment to help maintain a healthy mindset to be available to provide the needed supports required by palliative care patient (Chang, 2014). The demand for better, more sensitive, cost effective healthcare, and the wide spread expansion of palliative care programs is an intent of the

palliative care provider and the results are metamorphizing serious illness care nationally (Cassel et al., 2018) and subsequently internationally.

Music Therapy Burnout

Music Therapist that are palliative healthcare providers experience stress from emotional and compassion fatigue (Chang, 2014). In the United States over thirty years ago Oppenheim studied burnout and its effects on American music therapists. Chang (2014) noted the approach used by Oppenheim to collect correlating data to measure the levels of burnout was the Maslach Burnout Inventory (MBI) which is quantitative. The MBI has subscales that includes emotional exhaustion, depersonalization, personal accomplishment, cynicism, and professional efficacy and used a Likert scale.

More recently a study by Clements-Cortés (2016) focused on occupational stressors instead of burnout amongst palliative music therapist. By using a qualitative research approach, she was able to gain a deeper understanding of the palliative music therapist's experiences. The qualitative research used open questions such as, describe your feelings about being burnt out or what could you do differently to avoid burnout? The results exposed several factors that lead to burnout. First, was the music therapist lack of self-awareness, while burnout was occurring most music therapists' participants were not aware of the mental, emotional, and spiritual toll that the work was taking on them. Then there is the frustration caused by having to explain and advocate for music therapy on an almost daily basis, because people do not fully understand what a music therapist does. There is a substantial amount of training that corresponds with becoming a music therapist, that process can initiate burnout in the therapist. Multiple demands from the organization or workplace facility could add additional stress leading to burnout. Contract work has further stressors that include lack of benefits (healthcare, pension) and feeling that you are

not part of the team. According to Clements-Cortés (2016) symptoms of burnout include emotional, psychological, and physical manifestations.

The Future of Music Therapy and Palliative Care

The future of music therapy and palliative care can be evaluated using three criteria; access, education, and technology (AMTA, 2018). The first criteria are access, or how accessible MT as a palliative care may be in the future. As more evidenced-based research is approved and validated, more funding and access can be authorized. Since palliative care and music therapy has been introduced into America's educational guild, history has recorded advancements that show no sign of stopping (AMTA, 2018). Electronic music devices like EMTs and computer assisted devices are being used more frequently (Clements-Cortés, 2016). Neuronal level technologies that have advanced diagnostic, and better auditor response measuring is providing new tools for the music therapist to serve their patients in the future (Constantin, 2016). Although advanced technology and everyday devices are becoming more inexpensive and have improved technological quality, high tech may not always be the best solution, the competent, talented, resourceful music therapist may identify the right combination of tools for each individual patient (Clements-Cortés, 2016).

There are estimates currently that imply that 75% of those nearing end-of-life could be aided with palliative care (Etkind et al., 2017). By 2029 the last of the baby boomers will be 65 years old. According to the U.S. Census Bureau the 65 and over age group will nearly double in numbers by 2050. Healthcare providers will need to adjust to these changing demographics and provide needed services, which includes palliative care approaches (Etkind et al., 2017). Providing these needed services require resources and cost-effective ministrations. Increased life expectancy has led to increased age eligibility requirements to receive public pensions (U.S.

Census, 2016). This may alleviate some financial burden on the system but may prove to postpone preventative measures that may cost tax payers and senior citizens more in the long run.

CHAPTER III

DISCUSSION and CONCLUSION

The first issue I want to note concerns the universally known fact that the United States, a western culture, does not value its elderly or those seen as ill or weak. This attitude is a part of the problem that healthcare and particularly palliative healthcare for the elderly and indigent face in the United States. Only by virtue of the baby boomer generation's outspoken assertions and self-preservation tactics and lobbying groups like the AARP that are able to invest manpower and resources toward the wellbeing of those elderly in need of therapeutic palliative care. As mentioned previously in this paper baby boomers are quickly becoming the majority of AARP eligible tax paying citizens. The AARP is one of the true powerhouse advocacy organizations that support the rights of those elderly individuals whom are approaching end-of -life challenges.

Examination of medical care documentation methods and scheduling of information gathering as it concerns music therapy components is fundamental in understanding how to better improve ongoing methods of application, delineation of treatment plans, and to have more complete documentation of results as it pertains to the use of music therapy. As I see it, the lack of knowledge can be addressed by standardization of record keeping in both private and public facilities throughout the nation that offer music therapy. By instituting a few select questions pertaining to the use of music and music therapy in the healthcare setting, quantitative and qualitative information can be gained by the extraordinary amounts of diverse information supplied by those whom utilize these processes. Quantitative in the sheer number of responses from randomized groups of participants and qualitative in the phenomenological approach and feedback given from each person that takes part in the palliative activity. There can be many ways to accomplish this endeavor of data gathering, one is to schedule feedback from healthcare

worker and clients/patients at intermittent time periods to provide wide and universal populations from all regions and sectors of society to participate.

If sample sizes are a notable problem of palliative music therapy research validation, and we know that music therapy is an individualized or small group intervention, what prevents copious amounts of small sample sizes from becoming a large enough sample size. Much like intelligence testing or certification testing where the testing environment is standardized and observation and documentation are regulated and monitored to be considered a sufficient sample size. My point is that sample sizes may be determined by how many eligible participants take part in the study. Increasing this number provides the necessary amount of research data to be sufficient for evidence-based empirical data. It is my understanding that empirical evidence is gained by verifiable and provable experiment or experience. The ample data and the types of validation and specific to evidence-based practice demanded by politicians and institutions makes me ponder the possibility that because the profit margin associated with palliative music therapy may serve a central role in approving its usefulness.

Because a large number of clients that need palliative care are 65 years of age or older Medicare could mandate a certain amount of this type of data conformity, and possibly amend to Medicare Part B. Other insurance organizations may easily follow suit to cover younger palliative care participants. This gives more research information for a therapeutic process that is fluid, growing in acceptability, safe, and needed.

Something else to keep in mind is that palliative care does not limit itself to end-of-life concerns it can focus on relief of pain and other needed care to improve the quality of life for those with chronic illnesses. For some these challenges may include palliative personal care, and ways to live with dignity that could incorporate music therapy as an approach.

Ethical Considerations

The ethics of ignoring a non-invasive, more sensitive, cost effective healthcare approach such as music therapy seems antiquated and irresponsible, but as long as there is not enough evidence to demand use of these effective treatments, funding and protocols will not exist. The use of evidence-based MT in other disorders that aren't palliative could help those with life threatening afflictions as well as those that need temporary care to mend or recover. By this I mean that if music therapy is used by all that receive primary and secondary care for additional comfort, the stigma of music therapy in palliative care may be lessened. For discussions sake I haven't seen evidence that stigma is a large issue with palliative music therapy, but I do believe that each individual case may present circumstances where privacy, feeling accepted, or a part of the setting or surroundings may be important in some situations for the patient or their loved ones. Based on what I've learned and studied in the process of writing this paper, the need to gain knowledge concerning music therapy as a viable therapy locally, state wide, and nationally is not only relevant but is timely as it is needed to bring healthcare acumen into the 21st Century. Ethical concerns may exist when palliative care patients are not afforded potentially useful treatments like music therapy. This may be due to random group allocation (Warth et al., 2015), or because awareness of the procedure is not readily known. To remedy this problem random allocation is replaced by self-selection of different treatments that may be compared to music therapy. Treatments like reading to a patient, watching T.V. or many other types of counseling. To be clear MT can co-exist with many of these palliative activities and growing access to information about music therapy's practical use as a palliative care is a positive indicator.

Emotional Effects of Music Therapy

We know that music can cause strong distinct emotions, even piloerections and impulsive rhythmic motions, these strong emotions may cause an increased blood flow to the pleasure centers in the brain (Archie et al., 2013). Music is spiritual for a great number of individuals, in the traditional and non-traditional context (Cook & Silverman, 2013). A wide range of musical taste and therapy approaches make it difficult to determine individual courses of therapies initially. This fact alone should not preclude the use of music therapy as a therapeutic approach, it just indicates its flexibility, suitability, and universality. Other obstacles may include the lack of long-term feedback from the patients themselves as many are terminally ill and second person responses make conclusive data to indicate levels of satisfaction and emotional responses more difficult to obtain and validate.

Healthcare Coverage

An issue concerning music therapy's use in palliative care is that it is not being directly covered by insurance providers, Medicaid or Medicare, this is a political challenge that hinges on verifiable reproducible practices, evidence-based research, and political expediency. It is difficult to determine the propensity of elected government officials to support quality of life issues for those benefiting from palliative care by the obfuscating voting outcomes in recent elections. Most businesses rely on mandatory ethics, translated, laws that clearly address accepted practice and procedures when utilizing palliative approaches. So, if these laws are not in place, that practice or procedure does not get put into use. That is not entirely the fault of enterprise, it is how they protect themselves from malpractice. Businesses and organizations also rely on indicators that predict what is more beneficial to their bottom line, which means that ethical considerations and what is best for the patient may not be the higher priority.

Palliative Music Therapy Challenges

Music as a palliative therapy? Who is to say, that is not why music was invented or first attempted by cave men or women? Hearing as a major sense is celebrated by emotionally revealing sounds, music to some, noise to others. As a musician and music teacher, I see how music is used to empower people and how it can sooth and relax individuals, so I wonder why common-sense knowledge like this is not enough to allow patient directed palliative music therapy to be utilized and accepted in the clinical setting. Patient directed, in the sense that the patient's right to choose, and determine what type of music is allowed, how long, and the associated listening levels, within reason should be the norm. For Rehabilitation Counselors or Rehabilitation Administrators this useful tool can help supply a vital element to ensure complete holistic care at the end-of-life stage(s). The problems that may be addressed by utilizing music therapy in palliative care are profuse, tailorable, and diverse. Profuse in that the patient, the patient's family and loved ones, the care givers, and the associated organization including shareholders feel that they are doing not only their job, but the right thing. Administration and stockholders reap dividends for this cost effective therapeutic approach by being known as the institution that provides exceptional care for their patients and has a reputation of person-centered quality attention to detail and noteworthy empathetic behavior. Tailorable and diverse enough to suit each individual patient's preferences and needs according to their circumstances.

The goal of the palliative care clinician is to enhance the quality of life for their patient, the profit that accompanies thus care is not the primary consideration although to stay in business you must make ends meet. Making money off of our most vulnerable elderly, who have served their time and deserve respect and dignity in their final days is unethical, and illegal in some cases. But this is exactly what is happening in healthcare today. Dying with dignity sometimes

has a price tag. The practice and procedure of withholding this therapeutic approach is unacceptable, particularly when palliative care is low cost and highly effective because the tools of the trade are inexpensive compared to the cost of non-palliative medications, procedures, and medical equipment.

People-centered health care, addressing the culture of care and communication in diverse populations and regions can bring new insight to application and approaches utilized in the United States and the rest of the world. A sound, a note, a frequency may be proven to help those afflicted with a unique ailment or a widespread epidemic. This may sound a bit exaggerated but hearing loss and brain thought stimulation have been shown to benefit from such knowledge, an example would be the benefits of vibroacoustic therapy (Clements-Cortés, 2016).

To reduce racial disparities in healthcare, decision makers should be aware of the barriers endured by marginalized consumers. Experiences with healthcare are not universal, minorities and those patients that are lower SES may have lost large amounts of money to medical facilities. There are also those that have lost their homes to devastating medical bills and unrelenting nursing home lawyers. When you have experienced negative consequences from healthcare providers you may not see them as trustworthy. Policy makers should be aware of how lower supplemental insurance (SI) enrollment by minorities, which can offset healthcare cost, is a strong mediating factor. SI for minority beneficiaries can improve healthcare without a large increase in cost. Because of past encounters with medical providers some minority populations may not be privy to information that could help them get the needed medical attention that they require. Advocacy groups, private and public organizations could do a better job getting the information out there.

Public and private pensions, insurance discounts, Medicare benefits and associated supplements will all be affected by increased life expectancy by some form or another. In countries like the United States, these public pensions pay for palliative care, although the word palliative care is not used in the legislation, maybe it should be. Straight forward common-sense approaches that may not make some rich but will enrich others' lives should be the easiest legislation or guidelines to abide by. Palliative music therapy levels the playing field by providing everyone with embracing and sharing emotional personal moments to share a portion of death and more importantly life with dignity.

Uses of Music Therapy

Music therapy is used for a variety of ailments for a variety of reasons, it is known that dementia, depression, pain management, and stress are relieved by music therapy. As stated previously in this report, Individual Customized Music (IM) is being used in nursing homes, private homes, and assisted care facilities for the enjoyment of patients and their loved ones. Music therapy incorporates a professional certified well-trained music therapy counselor that utilizes receptive, creative, recreative, or combined approaches that help each patient to achieve a certain amount of physical or mental release, communication support, and/or some semblance of autonomy/control that enables them to address stressors associated with their medical prognosis.

The efficacy of music therapy is only a part of the ongoing advancement of critical care for palliative purposes. Medical approaches in the future will seem as different as it would to those who witness present day medical procedures who lived in 1918. We have to accept that we already have resources that are capable of achieving milestones in medical advancements with just the right alterations and standardizations, particularly in palliative music therapy. Other

advancements in medical care may require new technologies or a whole new way of thinking. Either way, common sense and ethical decisions should guide the way.

An aspect that may be overlooked or underestimated as to why a lack of knowledge exist in the palliative effects of music therapy is that the scientific approach can consider outlier results out of context. In other words when you know a procedure works, and it does not work you have categorical explanations that explain your findings. There are many extenuating circumstances that exist during palliative music therapy. The effects or changing effects of medications, other procedures, patient's lack of communication abilities, knowledge of patient preferences of music, equipment features, and many other personal adjustments and environmental considerations should be eliminated as reasons why knowledge is lacking.

Analytical Instruments

As noted in this research, promising instruments used to analyze music therapy approaches demonstrates advancements in knowledge and capabilities of evidence-based fact-finding. The Bergstrom-Nielsen inspired graphic notation based Music Therapy Analyzing Partitura (MAP) has established positive correlations with better outcomes for the client according to feedback from music therapist and from those whom they treated (Gilboa, 2012). From its inception MAP's flexibility of methods and assortment of tools that provide individual tailoring of treatment for its palliative care clients has proven to accomplish the aim of providing comfort and respectful regard for each individual human being.

There are however improvements to be made in ongoing efforts to improve the graphic notation's music therapy approach. The use of technology in terms of new or improved apps that may record more elements of the therapeutic session for instance may contribute to clarity and include nuances that could have been overlooked in previous MAP sessions. Technology that can

make it easier to for the music therapist to negotiate the back and forth in the recording and participating in sessions. Suggestions that may reduce time of setup and procurement of data should be considered. This includes practicality, logistics, technical resources, and experienced acumen.

Final Thoughts

As with any therapeutic approach one size does not fit all. Music therapy has to depend somewhat on personal preference, choices derived from the patient's autonomy. Because past evidence and results from data have shown so much promise and possibilities for the use of the therapeutic capability of music therapy inclusion for patients during palliative care, more research will be useful. In other words, more research is not necessarily required to prove if music therapy is needed, but more so how to better provide this therapeutic approach most effectively to those that need it in the future.

Advancements in healthcare are not linear strides by any stretch of the imagination. Progress, amelioration, and growth is gained by paying attention to the process and gaining information observing all results and their rudiments. By use of an adaptive, open minded analysis of the supplied data, alternative methods and approaches of the music therapy process may be created to help alleviate the challenges faced by those that need and depend on palliative music therapy.

It is not clear how healthcare will deal with the increase of palliative care needed in the future, but to ignore promising, cost effective therapeutic treatments like music therapy, particularly as it relates to palliative therapy would be unethical and self-defeating. It is certain that a tremendous amount of training is needed for counselors, nurses, doctors, and those in the

technology field that advance techniques to improve the level of care that is to be provided (Etkind et al., 2017), this certainly includes music therapy.

Implementation, funding, and access to palliative care resources such as music therapy signals a stable and durable healthcare system. It means that our current healthcare system is not only frugal and patient directed, but that every attempt to serve each client fully is taken seriously by healthcare providers and their stakeholders. Palliative music therapy offers the opportunity for clients and their loved ones to gain a closer relationship and clearer understanding of their loved one's past experiences, present feelings, and future aspirations.

The opportunity gained by using a procedure such as palliative music therapy to provide closure, dignity, and a more personal understanding for the patient and for loved ones of the patient cannot be over stated in its importance. Western culture has to respond to its lack of empathy for its health challenged citizens. This approach that leads to an every person for themselves attitude, leaves us alone in times of need and disregards healthcare's mission of accessibility, and cost-effective quality care.

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