THE EFFECT OF A MUSIC THERAPY VIDEO IN-SERVICE ON STAFFS' BELIEFS ABOUT MUSIC THERAPY IN BEHAVIORAL HEALTH

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THE EFFECT OF A MUSIC THERAPY VIDEO IN-SERVICE ON STAFFS’ BELIEFS ABOUT MUSIC THERAPY IN BEHAVIORAL HEALTH

By

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Dedication

I dedicate this thesis to my wife, Heidi Garcia, who has stood by my side and supported me during this journey and to my two children, Raymond, and Eloisa.
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Abstract

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2023

The purpose of this study was to determine if a short video presentation, about music therapy in behavioral health, had a positive effect on staff members’ beliefs about music therapy in that setting. A total of 26 staff members, from different departments, participated in the study and completed a pre- and post-presentation questionnaire. Responses were analyzed and compared to investigate whether the video had a positive effect on staff members’ beliefs about music therapy in behavioral health. Participant demographics and pre- and post-video questionnaire responses were also analyzed and compared to explore the differential impact of the video by subgroups of specific demographic categories. Based on the results, there was evidence that there was favorable change in participants’ relevance beliefs about music therapy in behavioral health. In addition, pre- and post-questionnaire differences in means scores were larger for those working in activities than those working in nursing, larger for those who had not observed a music therapist working in behavioral health than for those who had, and larger for those who did not have a musical background when compared with those that did.
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CHAPTER 1: INTRODUCTION

Music therapy in behavioral health involves clinical and evidence-based psychosocial treatment that uses the client-therapist relationship and music-based interventions to address assessed areas of need. In this setting, two common areas of need include emotional and social needs. Addressing these needs assists the client with managing symptoms and behaviors related to anxiety and depression which are common complaints among individuals who receive care through behavioral health facilities. Unmanaged anxiety and depression are associated with the worsening of mental illness related symptoms and behaviors which negatively impact the client and the staff who provide care to the client.

Regardless of what has just been stated, behavioral health staff still hold misconceptions about the role of music therapy in behavioral health. Three common misconceptions include: That music therapists teach clients about music, teach client how to play musical instruments, and entertain the clients. Darsie (2009) had a similar experience when participant staff members, within a pediatric outpatient clinic, rated “entertaining the children and their families when they are not involved in medical procedures” as a task that they believed to be part of the role of the on-site music therapist. Although a pediatric outpatient clinic is a different setting than a behavioral health facility, we can see that there is a similarity when it comes to staff’s beliefs about the music therapist’s role.

Choi (1997) examined how other professionals and patients, within a psychiatric setting, viewed music therapy in terms of attitudes and relevance to the setting. In addition, the researcher was interested in knowing how music therapists, working in a psychiatric setting, viewed their role and whether it differed when compared with the views of other professionals.
Based on the findings, there were lower mean scores from other professionals when it came to music therapy being used to address cognitive goals. Also, the researcher mentioned that there were discrepancies between how music therapists viewed their role and goals when compare to how other professionals viewed the role and goals of music therapists. Finally, other professionals reported that they did not know that music therapy was a research-based treatment modality. Although this study was published in 1979, present-day behavioral health music therapists may still face similar issues if they do not take the time to address the possibility that some of their colleagues may have inaccurate beliefs about music therapy and about the role of a music therapist in behavioral health.

Inaccurate beliefs about the role and skill set of board-certified music therapist can lead to problems such as role ambiguity and conflict. Darsie (2009) mentioned how role ambiguity often occurs when the expected behaviors of a role are unclear, leading to role conflict, which occurs when the individual performing the job task has a different perception of the expected role than other team members. Again, it is the responsibility of the music therapist to correct any inaccurate beliefs that other staff members hold about the skill set and role of a board-certified music therapist within a behavioral health setting. Ultimately, unaddressed role conflict and role ambiguity can negatively impact overall job performance, job satisfaction, and lead to burnout.

While another mental health professional may observe a music therapy session and see a client that looks entertained (e.g., playing a musical instrument or learning about music), there is likely more going on than appears on the surface. The role, training, and skill set of a board-certified music therapist is different than that of music educator or volunteer musician. Since it is more common to see a volunteer musician than a music educator in a setting such as a behavioral health facility, it will first be helpful to focus on the volunteer musician. It should be noted that a
professional, data-based model is one thing that distinguishes a board-certified music therapist from the well-intentioned volunteer musician. This is not to say that the presence of a volunteer musician cannot be therapeutic: A volunteer musician can provide uplifting entertainment and human interaction. A noteworthy difference between the two is that a volunteer musician is typically performing while a board-certified music therapist is engaging in a therapeutic process to address areas of need. This process typically involves a referral, initial and on-going assessment of the client’s strengths and needs, setting therapeutic goals, developing music-based interventions to address those goals, implementing interventions, modifying the treatment plan when needed, and treatment termination (AMTA, 2015).

There is some research that shines light on the role of a music therapist within behavioral health. Oren et al. (2019) carried out a qualitative study that incorporated a semi-structured interview approach to investigate how experienced professionals with influential positions in the public health system viewed the integration of the arts in community rehabilitation services designed to promote personal recovery. The findings in this study included two main themes: (a) the perceived position of arts-based programs among other rehabilitation services, and (b) the unique contributions of the arts to recovery processes. The first main theme included two subthemes: arts as a legitimate supplemental service and arts as motivating rehabilitation. The second theme included three subthemes: Art-making facilitates self-expression and bypasses communication barriers, art-making facilitates socialization, and art-making shapes and enhances personal identity. The study demonstrated how professionals perceived the arts as contributing to areas such as expression, communication, socialization, and enhancement of personal identity. These are areas of need that are often addressed through music therapy. Although this does not comprise the entire skill set nor role of the music therapist in a behavioral health setting, it begins
to fill gaps beyond the belief that music therapists teach clients about music, teach client how to play musical instruments, and that they entertain the clients. The researchers also found that participants perceived the arts in community rehabilitation as being a supplemental service. This is accurate in relation to music therapy in behavioral health since it is often meant to be supplemental treatment that augments the standard care that is already addressing physiological and psychiatric needs. In other words, it is not intended to replace conventional treatments. If this is not clear, music therapy treatment may face some skepticism from mental health professionals who are not knowledgeable about the field.

With that said, the role of a music therapist can only be accurately understood if more time is spent advocating for the profession and teaching other staff about the profession. Yes, music therapy is a clinical and evidence-based profession, but without continued advocacy and education, we will only prolong the existence of inaccurate beliefs about the field.

One way to address inaccurate beliefs about the profession is through in-services. In-services are a common method for providing on-going training in behavioral health settings. Silverman (2015) stated that scholarly journals are valuable and effective methods for educating other professionals about music therapy and advocating for the field; however, staff members may not have access to the resources nor the time to learn about music therapy from scholarly journals. He goes on to explain how in-services are a great way to educate others since they are time-efficient, direct, customized, and a more personable technique. Silverman also stated that few studies have examined the perceptions of music therapy in-services in professional settings. Although not related to behavioral health, results from Darsie (2009) suggested that a 5-minute video in-service was successful when it came to modifying existing interdisciplinary team members’ perceptions of music therapy and its function in a pediatric clinic. Findings by
Silverman and Chaput (2011) were similar in that there was evidence to suggest that a 15-minute in-service was an effective and an efficient technique to educate oncology nurses and gain support for music therapy research.

**Purpose of Current Study**

Currently, there is no research specific to behavioral health music therapy in-services. The purpose of this study was to investigate the effects of a short video presentation on staffs’ beliefs about the relevance of music therapy in behavioral health. Results from this study may provide evidence that supports the use of short video presentations to positively affect professionals’ beliefs about the relevance of music therapy in behavioral health. In addition, findings may identify staff misconceptions. Once identified, staff misconceptions can be addressed so that staff have a more accurate understanding about the field and about the role of the music therapist. An accurate understanding about the field, continued education, and continued advocacy may lead to more employment opportunities for music therapists in behavioral health, appropriate job roles of music therapists, and increased services for consumers. For the present study, the Beliefs about Music Therapy in Behavioral Health Questionnaire and questions related to demographic information were used. The following research questions were examined:

- Research question 1: Does a short video presentation about music therapy in behavioral health have a positive effect on staff members’ Relevance Beliefs (post-questionnaire responses)?
- Research question 2: Do staff members’ Relevance Beliefs pre- and post-questionnaire changes scores vary by: employed department, previous experience observing music therapy, and having a musical background?
CHAPTER 2: REVIEW OF THE LITERATURE

**Music Therapy in Behavioral Health**

Music therapy uses psychosocial treatment that is defined as the clinical use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program (American Music Therapy Association, 2012). Silverman (2015) adds to this definition by stating, “for people who have serious mental disorders, music therapy typically functions as an additive treatment along with other educational, psychosocial, rehabilitative, and psychopharmacological interventions” (p. 59). In behavioral health, areas of need often relate to the emotional and social domains. Addressing these needs assists the client with managing symptoms and behaviors related to anxiety and depression which are common complaints among individuals who receive care through behavioral health facilities. Unmanaged anxiety and depression are related to the worsening of mental illness related symptoms and behaviors which negatively impact the client and staff who provide care to the client.

**Barriers**

In healthcare there exist attitudinal barriers. Attitudinal barriers are influenced by workplace culture. When workplace culture, such as work factors, create a workplace climate where feelings of stress and discontent are a norm, factors such as acceptance and implementation of new ideas/approaches, job satisfaction, and staff turnover can be impacted. Knowledge about attitudinal barriers can assist the music therapist with creating educational tools that can work around the existing culture and work climate.
Barriers Within the Behavioral Health Profession

One such barrier has to do with attitudes towards the adoption of evidenced based practices (EBP). Aarons and Sawitzky (2006) used a survey approach to examine the association of organizational culture and climate with attitudes towards EBP. Organizational culture was defined as the organizational norms and expectations regarding how people behave and how things are done in an organization. Organizational climate was defined as the workers perceptions of, and emotional responses to, the characteristics of their work environment. Participants included 301 clinical and case management mental health service providers from forty-nine publicly funded youth mental health programs in San Diego, California. The survey included demographic questions, the Evidence-Based Practice Attitude Scale (EBPAS) to assess attitudes towards EBP, and the Children’s Services Survey to assess organizational cultural and climate. The study sought correlations between the three sections of the survey. Aside from the various demographics, the constructs for organizational culture were defined as constructive and defensive culture, and for climate were defined as positive and negative climate. Based on the study, a constructive culture can be thought of as an openness to different ideas, opinions, and approaches while a defensive culture is closed off to such differences, as they do not meet the collective norm. Based on the findings of the study, adoption of EBP was found to be more likely if a culture was constructive with a positive climate. Culture and climate are interrelated; to have an impact on organizational climate, one must be able to change the organizational culture since it greatly impacts climate. The researchers also noted that staff with higher levels of education were more likely to adopt EBP while those who had been working longer within the program and did not have higher education were less likely to adopt EBP. It may be that lack of higher education in combination with being in a program for many years leads to a lack of
flexibility; flexibility is a factor that aids when it comes to staff having a positive attitude towards the adoption of EBP. A negative culture and climate can act as barriers for music therapists in behavioral health since the profession involves an evidence-based approach. It may be important for the music therapist to learn how to work with the existing culture and climate since referencing research and talking about the benefits of music therapy may not be enough when it comes to influencing the beliefs of other professionals.

Kurjenluoma and Rantanen (2017) carried out a similar study that employed a quantitative survey approach to explore how nurses perceived workplace culture in psychiatric settings. Workplace culture was represented via perception of job stress, job satisfaction, and practice environment. Participants included 109 nurses who volunteered from two purposely selected hospital districts in Finland. The questionnaire included a section with demographic questions and a section that incorporated the Person-Centered Nursing Index (PCNI) which measures stress, satisfaction, and practice environment via a Likert-Type Scale. The questionnaire was received via email. Based on the findings, most of the nurses responded positively to all three focuses. Workload appeared to be the most stressful factor when it came to job stress. A culture that involves heavy workloads can make it difficult for a music therapist to gain support from other departments, such as nursing, if members from other departments are already overwhelmed with their assigned tasks. For these staff members, participating in one more in-service can easily turn into a burden and an inconvenience. Longer length of time working at a hospital was associated with job satisfaction. Therefore, it may be wise to gain support from department supervisors who have longer lengths of time working since they may have higher levels of job satisfaction. Higher levels of job satisfaction may mean that they have more energy and flexibility when it comes to adopting a music therapy program and investing
the time and energy to be more knowledgeable about the profession and about the role of the music therapist. In their conclusion, the researchers pointed out that a positive workplace culture was associated with quality of care and retention of nurses. Lack of retention of nurses means that the music therapist must educate new nursing staff about music therapy since they may not be familiar with the profession. This can make it difficult to gain support when you consider that music therapy in behavioral health already struggles with seasoned staff having inadequate beliefs about the role of a music therapist. Workplace culture that impacts climate and staff retention can be better understood by understanding work factors.

Dallender and Nolan (2002) surveyed hospital mental health nurses, community mental health nurses, and psychiatrists regarding satisfaction and dissatisfaction of their work and work environment. The researchers stated that knowledge of work factors that contributed to a positive work attitude could assist in the identification of strategies to improve job satisfaction which would also reduce staff absences and sickness. The participants included: 50 hospital mental health nurses, 50 community mental health nurses, and 50 psychiatrists from 5 different mental health facilities in the West Midlands region of England. The survey was designed by the researchers and included closed and open questions. The open questions were analyzed through a thematic analysis. Based on the findings, more hospital nurses reported collegiality before provision of care to clients when it came to what provided job satisfaction. Excessive paperwork was seen as something that contributed to job dissatisfaction across all three groups. Hospital nurses and psychiatrists also felt that clinical staff needed to be included in strategic development and that there was a need for discussion of changes prior to changes being implemented. Staff duties, such as excessive paperwork, can make it difficult for other staff to invest time and energy into tasks that are outside of their main responsibilities. When designing music therapy-
based in-services and attempting to get other staff to participate and become more well informed about the field and role of the music therapist, details such as these must be considered to carry out an in-service that caters to the already existing culture, climate, and work factors. Music therapists should not observe this approach as conforming, but instead, as the first step to figuring out the best way to educate other staff about the field and the role of the music therapist in behavioral health. Regardless of the occupation, it is important to know and cater to the audience that you are providing the in-service to since it can impact the effectiveness of the music therapy-based in-service and even the music therapy program. Not considering the audience can lead to the music therapist having expectation, such as staffs’ investment of time, that are unrealistic and that cause the staff to experience stress because of their already busy schedules.

Aside from work factors, unpredictable factors, such as violence in the workplace are also part of workplace culture in behavioral health facilities. A study by Nolan and Dallender (1999) used a questionnaire to examine the type and severity of violence experienced by nurses and psychiatrists working in mental health facilities. In addition, the researchers wanted to know what support, if any, these individuals received after the experienced violent event(s). The researchers pointed out that by identifying staff and environmental factors, attack and injuries to staff could be reduced or eliminated. Participants in the study included 74 psychiatrists and 301 nurses from five mental health facilities in West Midlands, England. The questionnaire included 20 items that examined the number, type, and severity of the experienced violence and the support provided after the violent event. Based on the findings, the nurses experienced significantly more violence from patients than the psychiatrists did; this was true for both violence that occurred the year prior to the study and even throughout their careers. Fifty percent
of nurses had sustained some injury during the previous year and half had received some support; support was mostly from colleagues. Most of the staff that experienced violence were younger, less satisfied with their job, experienced feelings of not having control of their work environment and demonstrated incompetence. The fact that violence is experienced by staff, such as nurses, in behavioral health, can act as a barrier due to it being another factor that may contribute to a work climate filled with dissatisfaction and skepticism towards interventions and treatment approaches.

**Beliefs About Music Therapy**

A belief is defined as something that is accepted, considered to be true, or held as an option: something believed (Merriam-Webster, 2023). Misconceptions about the profession can create barriers for music therapists in behavioral health. These barriers can lead to problems such as role conflict, job dissatisfaction, and music therapist burnout.

**Clients’ Beliefs About Music Therapy**

A study by Paul et al. (2020) used a qualitative interpretivist survey approach to explore the reflections of patients after completing a course of eight individual music therapy sessions for major depressive disorder (MDD) or acute phase of schizophrenia spectrum disorder (SSD). Research questions included: how did the participants experience the course of music therapy, activities within the session, and what were the perceived effects that music therapy had on them and their daily living? Participants included eight individuals with MDD and seven individuals with SSD. Participants were purposely sampled following their completed course of music therapy while staying at a large public psychiatric hospital associated with the University of Pretoria in South Africa. Participants included six males and nine females 18 to 57 years. Individual music therapy sessions took place twice a week for eight weeks and were similar in
structure. All music therapy sessions incorporated active and receptive music therapy methods. Semi-structured open-ended non-leading questions were used to guide the interviews. Interviews were about thirty minutes in length, video-recorded, and transcribed. Transcriptions were used to select verbatim quotes for coding to capture the core experiences of the participants. Codes were analyzed and compared until no new data emerged from the continued coding. Domains, themes, and subthemes served as an expression of the data given by the participants. The themes that emerged from the data included: Praise for music therapy, distress before and during music therapy, opening and emotionally dealing with old wounds, new perspectives, growing stronger, emotional fulfillment, becoming socially closer and more adept, and becoming liberated and creatively inspired. The overall view of music therapy was that it provided opportunities to assist the clients with their present state and “old wounds.”

In a similar study, Solli and Rolvsjord (2015), employed an interpretative phenomenological semi-structured interview approach to explore first-hand accounts of what it was like for inpatients with psychosis to participate in music therapy and how inpatients with psychosis experienced music therapy in relation to their mental health and current life challenges. The study included nine purposely selected participants who were already receiving music therapy services through the first author at a closed inpatient intensive psychiatric unit. The interviews included a nondirective interview approach and began with two initial questions: “What kind of role does music play in your life?” and “can you tell me about your experiences with music therapy in the last couple of weeks?” Each participant was meant to receive three interviews, but this was not the case for all nine participants due to varying factors. Interviews were analyzed and codes were developed and put into themes that were interpreted by the authors to address the research questions. The four main themes that emerged from the study
included: Freedom, contact, well-being, and symptom relief. The authors also mentioned that the participants mentioned that they did not view music therapy as treatment.

Regarding the view of music therapy as a non-traditional approach, Solli et al. (2013) carried out a meta-synthesis of studies to explore the potential of music therapy as a recovery-oriented practice. The authors wanted to know, in which ways could music therapy support the recovery processes of persons with mental health problems? And how could music therapy contribute to a recovery-oriented practice? Based on the study, mental health recovery can be defined as living a life of meaning and purpose, even with limitations caused by the effects of mental illness. Studies included those that explored the users’ experiences of music therapy in mental health and psychiatry and those that included qualitative interviews or free verbal reflection of the service users. The meta-synthesis included fourteen studies with a total of 113 participants ranging in approaches, contexts, and diagnosis. The findings included four domains with three sub-domains that showed characteristics of a recovery-oriented practice. Each subdomain included direct quotes from the included studies. The four domains included: Having a good time, being together, feeling, and being someone.

In a study by Silverman (2006) a quantitative survey approach was used to evaluate which therapies and psychoeducational groups/classes adult psychiatric patients found the most helpful and the most effective in a given area. Participants included: Seventy-three patients from an inpatient intermediate care facility. Participants had been attending groups/therapies for a minimum of two weeks and volunteered when asked if they would complete the survey. Data from surveys was collected every two weeks for a period of three months. The survey consisted of four sections: A section that asked how helpful each group/class was, a section that asked which group/class was the most effective in ten given areas, a demographic section, and an open-
ended section for comments about groups/classes. The first section incorporated a Likert type scale with 1 being “not helpful” and 10 being “very helpful.” Music therapy was rated the most helpful and the most effective for all ten given areas when compared with recreational therapy and five other psychoeducational groups/classes. The study incorporated an interpretative phenomenological semi-structured interview approach to explore first-hand accounts of what it is like for inpatients with psychosis to participate in music therapy and how inpatients with psychosis experience music therapy in relation to their mental health and current life challenges.

**Staffs Beliefs About Music Therapy**

A study by Choi (1997) used a non-experimental survey approach to examine how other professionals and patients, within a psychiatric setting, viewed music therapy in terms of attitudes and relevance to the setting. In addition, the researcher was interested in knowing how music therapists, working in a psychiatric setting, viewed their role and whether this differed when compared with the views of other professionals. Eighteen music therapy clinical training directors distributed the surveys to other professionals/patients within the facility or provided individual names, from his or her hospital, to have the survey mailed directly to the individuals. Music therapists employed in in-patient psychiatric units also received surveys. The questions on the survey varied dependent on whether the individual filling out the survey was an allied professional, patient, or music therapist. Completed surveys included: 271 staff member surveys, 138 patient surveys, and 210 music therapist surveys. Some major findings included lower mean scores in relation to other professionals’ perceptions about music therapy addressing cognitive goals. The researcher mentions that this could have been because this was an area typically addressed by psychologists, psychiatrists, and social workers. Many of the staff reported not knowing that music therapy was a research-based treatment modality. Although behavioral
health music therapy research has been published since the publication of this study, there is still needed advocacy for the profession. This research article is still relevant when it comes to the importance of educating other staff members about the field and about the role and applicability of music therapy within a behavioral health setting.

Going beyond music therapy, Garrido et al. (2020) carried out a study that employed a mixed-method explanatory survey and interview design to explore how staff working at aged care facilities in Sydney, Australia perceived the use of music in their facilities. Participants included: forty-six staff members who volunteered from various aged care facilities across Sydney, Australia; facilities were randomly selected from the available database. Five of the forty-six participants volunteered to take part in the interview portion of the study. The survey was completed through a computer and took anywhere from 15-20 minutes to complete. The survey included 17 items that gathered demographic information, participants’ perceived use of music within their facilities, perceived benefits of music, open-ended questions about situations where music had an adverse effect, and open-ended questions about perceived barriers when it came to implementing music-based interventions. The interview portion was over the phone and took anywhere from 15 to 30 minutes to complete. The questions asked during the interviews were designed to gain a deeper understanding of the responses given on the survey portion of the study. From the data gathered during the interviews, codes and themes were created to ultimately draw meaning and deeper understanding. Based on the findings, some of the participants described moments when music-based interventions were ineffective or caused adverse effects such as: increased agitation/aggressive behaviors, overstimulation, and music triggered “sad” memories. Since listening to prerecorded music in a group setting was the modality most often used by these facilities, it is likely that most of these facilities were not using an individualized
person-centered approach when it came to implementing music-based interventions. One of the reasons stated for not having a staffed or contracted board-certified music therapist was funding. Since most of the facilities that participated in the study were in lower socioeconomic locations of Sydney, Australia, it may be that lack of funding was a contributing factor for why many of these facilities did not use a board-certified music therapist to provide music-based therapeutic services to their clients. As stated earlier, the difference between the volunteer musician and the board-certified music therapist is that one is performing while the other is using a therapeutic process to address assessed areas of need. It may be that some of the ineffectiveness or adverse effects that occurred could have been reduced or managed appropriately had the music-based interventions been implemented by a board-certified music therapist. It may also be that some inaccurate beliefs about music therapy may come from beliefs held about the effects of music when implemented by a non-trained professional.

Currently, there are no studies related to physicians’ beliefs about music therapy. Although not specific to music therapy, Midler and Stokols (2004) carried out a review of research literature on complementary and alternative medicine (CAM) and used a mixed-method explanatory survey and open-ended questions approach to test the hypothesis that physicians’ beliefs, attitudes, and behaviors towards CAM were influenced by professional normative beliefs and perceived expectations. As music-based interventions are often considered complementary treatment meant to augment standard care, knowing other professionals’ opinions about complementary and alternative treatments may be important when considering their beliefs about the relevance of music therapy in behavioral health. The study included fifty-one California physicians that responded to the mailed survey sent to 200 randomly selected California physicians licensed by the California Medical Board. The survey was a self-report survey and
utilized Likert-type scales and open-ended questions. The survey inquired information about six areas: Respondent’s orientation towards CAM, two open-ended questions asking the respondent to share their thoughts about the integration of CAM with traditional medicine as well as what CAM resources they felt would be the most valuable to them in their practice, a ranking of their knowledge of the medical efficacy of twenty CAM treatments, questions about their use of technology in their practice as well as their interest in CAM education, demographic information, and if the respondent received CAM training in medical school. As for the findings, physicians’ beliefs and attitudes showed mild positive reactions towards CAM, but there were still lower mean scores when it came to intention to use CAM and current use and/or recommendation of CAM. Based on the physicians’ responses, it appeared that these lower means scores may have been due to the physicians not having enough knowledge about CAM, and consequently, this causing some concern for physicians due to legal liability and institutional concerns since institutions typically follow certain guidelines and practices. Based on the findings of the study, it is important that music therapists continue to educate other professionals, such as physicians and nurses, so that they are well informed about the field of music therapy and about the role of a music therapist in behavioral health. For professionals with higher education, such as physicians, the use of research appears to be an important factor since it appears that medical practitioners are trained from a strict objective and quantitative approach. One of the comments made by one of the respondents was that CAM needed to be more evidence based to become fully acceptable. Music therapy uses an evidenced-based approach, but it is likely that many professionals are not aware about this fact.

There is research that demonstrates that staff in behavioral health do have an accurate understanding about the role of the music therapist. One study by Silverman (2018) employed an
interpretive phenomenological inductive interview approach to explore how acute care mental health staff and administrators perceived music therapy and what they considered to be the contributing components of music therapy. The participants included six purposely selected staff members, from varying disciplines, who volunteered to take part in the study. The patients at the facility were typically hospitalized from three to seven days and had varying psychiatric diagnoses. Music therapy sessions took place once a week for one hour and incorporated an educational model of music therapy for illness management and recovery utilizing songwriting and lyric analysis interventions. Interviews included predetermined questions to obtain data that was then coded and put into themes to interpret and build theory that would address the research questions. Although the findings were promising, it is difficult to say that this study could be used as an accurate representation of most behavioral health staffs’ beliefs about music therapy. The music therapist, who was also the researcher, had already had a relationship with the participants for five years prior to the date when the study was carried out. As for the findings, nothing negative was said about music therapy. It’s possible that participants did not want to say anything negative about the music therapist/researcher who they had an established relationship with. It’s also possible that they had already developed a clear understanding about the field and about the role of the music therapist because of the 5-year relationship that they had built with the researcher.

**In-Services**

In-services may be a way to solve other professionals’ misconceptions about the relevance of music therapy in behavioral health. O’Malley et al. (2013) stated, “there is widespread recognition that the lack of an adequately trained health care workforce is a major barrier to scaling up and sustaining health-related services in resource-limited settings.
“worldwide” and that “in-service training for health care workers has proliferated as a key strategic approach to this challenge” (p. 2). It may be that adequate training, in the form of educating other professionals about the relevance of music therapy in behavioral health, is what is missing. To accomplish this, it may be necessary to not only present the right information, but to also present it in a way that best aligns with the culture and climate of the facility.

**Live In-Service**

Silverman and Chaput (2011) used a quantitative pre and post questionnaire approach to determine if there were changes in nurses’ perceptions of music therapy after a twenty-minute video in-service. The participants included 18 nurses and 1 social worker working on a surgical oncology unit of a large teaching hospital that had not previously offered music therapy services to patients. The questionnaire included 6 demographic questions, 13 questions that asked how strongly the participants believed that music therapy could be used to meet the specified objective via a Likert-Type Scale, and one open response question that asked what music therapy was or may look like on the unit. The in-service was a twenty-minute power point presentation and consisted of: a definition of music therapy, an overview of academic and clinical training of music therapists, and research that was related to the unit. Findings demonstrated an increase from pre to posttest for 11 of the 13 items and a significant increase for 6 of the items which demonstrated effectiveness when it came to the use of a power point video in-service as a tool for continued education. The researchers stated that many of the ratings for 11 of the 13 items were already rated highly before the power point video in-service was even provided. This may have to do with the fact that this study was provided to nurses working at a large teaching hospital; it could be that many of these nurses work in the field of education and so may be more open and knowledgeable about complementary/alternative treatments. It may be worth exploring
if outcomes show different results if the same study is carried out on a surgical oncology unit located inside of a general hospital that is not a teaching location.

**Video In-service**

Video in-services can be a useful alternative when getting staff together for a live in-service is too difficult. This can occur due to schedule conflicts but also because of restrictions such as gathering restrictions implemented as precautionary measures for Covid-19. Darsie (2009) used a 5-minute video in-service in her study that used a one-group non-experimental design with pre-test and post-test measures (survey) to address two goals. The first goal was to examine the initial perceptions of the interdisciplinary treatment (IDT) team, from a pediatric oncology/hematology outpatient unit, in relation to the role of music therapy in the treatment team. Information gathered through the pre-test was used to identify areas where role conflict and ambiguity might exist among the perceptions of the IDT team in relation to the role of music therapy. The second goal was to examine whether the observation of a five minute video, that provided: an introduction to music therapy, outlined the process of referrals, assessing patients, and creating and documenting goals, along with a combination of video clips and still shots of individual music therapy sessions with clients on the pediatric outpatient unit, could act as an effective teaching tool that would significantly change the initial perceptions of the members of the IDT team via the post-test. Participants included seventeen members from the IDT team from a pediatric oncology/hematology outpatient unit where the lead researcher/music therapist was currently employed. The instrumentation included one survey that was made up of two sections. The two sections included questions about the participants’ occupations, length of time in current positions, and twenty questions that asked the participants their perception about the role of music therapy in the treatment team. The twenty-five questions were rated using a Likert-type 1-
5 rating scale. Findings included that physicians, nurses, nurse practitioners, pediatric psychologists, and social workers rated, “entertain the children and their families when they are not involved in medical procedures,” significantly higher than the child life specialists and creative arts therapists when it came to whether this pertained to the role of the music therapist. It was also found that “providing distraction for children during painful procedures” was rated significantly higher by the clinical nurses/nurse practitioners than the child life specialists/creative arts therapists. The third finding was that during the post-survey, there was a significant change in perception when it came to whether making written developmental assessments, providing support to patients during procedures and routines, and assessing and setting goals to meet the emotional needs of patients, was a role of the music therapist. Based on the results, it appears that a five-minute video presentation about music therapy was effective when it came to significantly changing perceptions of the interdisciplinary treatment team.
CHAPTER 3: METHODOLOGY

Study Design

The study employed a quantitative, pre-experimental, single group pre-test and post-test design. This design was based on those used by Darsie (2009) and Silverman and Chaput (2011). This design was appropriate as the goal of the study was to see if a short in-service video had an impact on other professionals’ beliefs about the relevance of music therapy in behavioral health. Relevance was measured by comparing pre-test and post-test scores. Qualtrics XM, an online survey platform, was chosen for questionnaire distribution.

Participants

Upon receiving approval from the Institutional Research Board of the University of the Pacific, a list of eligible participants was acquired for one-time research use, on September 6, 2022, from the facility where the study was conducted. The list contained 53 emails and only included staff members who had a facility provided e-mail addresses. To increase the sample size, participants who did not have a facility provided email were recruited through flyer and verbal recruitment. Once the staff member agreed to participate in the study, their personal email address was obtained by the lead researcher. This email address was used to email the participant a link to the questionnaire. Study inclusion criteria stated that participants needed to be adults who were employed at the facility during the time of the study and eighteen years or older. Participation in the research was voluntary and participants could withdraw at any time without consequences.
Procedure

The questionnaire invitation (Appendix A) was distributed to the 53 staff members who had a facility provided email addresses on November 28, 2022. Afterward, reminder questionnaire invitations were distributed bi-weekly on December 12, 2022, December 26, 2022, January 9, 2023, and January 23, 2023. Additional questionnaire invitations were emailed intermittently to individual participants who did not have a facility provided email and so were recruited through flyer or verbal invitation. All questionnaire invitations were sent out via Qualtrics XM. The questionnaire was open for 65 days (from November 28 to January 31).

The email invitation included an introduction to the study, estimated time to complete the questionnaire, notice of voluntary participation, and a hyperlink to the questionnaire. All sections of the questionnaire were set up through Qualtrics XM. The first page of the questionnaire included informed consent information (Appendix B). After giving consent through the informed consent page, participants were directed to the demographic questionnaire (Appendix C), the pre-video questionnaire, an embedded video related to music therapy in behavioral health settings, and the post-video questionnaire. In the order described, participants navigated through the different sections of the questionnaire by clicking an arrow that was located at the bottom right of the screen.

Instrumentation

Demographic Questionnaire

The demographic questionnaire consisted of four multiple choice questions, two YES/NO questions, and one open ended question. The four multiple choice questions gathered participant information related to: Age, preferred gender, ethnicity, and employed department. The two YES/NO questions gathered participant information related to: Whether the participant had
observed a music therapist working in behavioral health before and whether the participants had sung or played a musical instrument before. The one open-ended question gathered information related to how many years the participant has been working in behavioral health.

The independent variables in the study were age, gender, ethnicity, employed department, years working in behavioral health, whether the participant had observed a music therapist working in behavioral health before, and whether the participant had sung or played a musical instrument before. The dependent variable was how the participant rated the twelve items on the survey.

**Beliefs about Music Therapy in Behavioral Health Questionnaire**

Staff’s beliefs about music therapy in behavioral health were measured using an instrument that was adapted from a research project that examined the perceptions of interdisciplinary team members regarding the role of music therapy in a pediatric clinic (Darsie, 2009; Appendix D). The questionnaire consisted of 12 items that participants rated based on how strongly they agreed that the stated task could be adequately and appropriately met by a board-certified music therapist. Participants rated each item using a 5-point Likert scale: 1 (*Strongly disagree*), 2 (*Disagree*), 3 (*Not sure*), 4 (*Agree*), and 5 (*Strongly agree*). This questionnaire was subjected to an analysis of its technical adequacy and is discussed in Chapter 4.

**Music Therapy in Behavioral Health Settings Video**

The video consisted of twenty-two PowerPoint slides. Information for each power point slide was provided using recorded voice-over, which was recorded at the Owen Hall Recording Studio at the University of the Pacific. The total length of the video was eleven minutes and twenty-nine seconds. The purpose of the presentation was to: Introduce music therapy as a discipline that provides psychosocial treatment for clients in behavioral health settings, provide
knowledge about music therapy training, objectives, approaches, and interventions, and to present selected research findings related to music therapy in behavioral health.

**Method of Analysis**

Completed survey responses were imported into an Excel File and later imported into the Statistical Package for the Social Sciences (SPSS). The data were examined for aberrant responses (e.g., those that were shorter than the length of the video or were incomplete). Afterward, descriptive statistics were used on the participants’ background/demographic characteristics. This was followed by exploring the technical adequacy of the pre- and post-video questionnaire with regard to reliability (using Cronbach’s alpha) and validity (exploratory factor analysis). Finally, an inferential approach (a one-tailed t-test for dependent samples) was used to compare participants’ pre- and posttest scores.

**Research Question 1**

Regarding the first research question, “Is there an increase in relevance scores from pre-test to post-test after watching an in-service video?” a paired samples t-test was planned to compare two means (pre-test and post-test scores).

**Null Hypothesis.** There is no increase in relevance scores from pre-test to post-test after watching the in-service video.

**Alternate Hypothesis.** There is an increase in relevance scores from pre-test to post-test after watching the in-service video.

**Research Question 2**

Regarding the second research question, “Do staff members’ Relevance Beliefs pre- and post-questionnaire change scores vary by: employed department, previous experience observing
music therapy, and having a musical background?” ANOVA and independent samples $t$-test (2-tailed) were planned to compare means.

**Null Hypothesis.** Relevance change scores do not vary by employed department, previous experience observing music therapy, or having a musical background.

**Alternative Hypothesis.** Relevance change scores do vary by employed department, previous experience observing music therapy, or having a musical background.
CHAPTER 4: RESULTS

Demographic Information

Of the 26 participants who responded, the most common age range reported was between 31-40 years ($n=10, 38.5\%$). The most common gender identified was women/female ($n=18, 69.2\%$), the most common ethnicity was Asian ($n=15, 57.7\%$), and the most frequently reported department was activities ($n=11, 42/3\%$). Regarding whether participants had previously observed a music therapist working in behavioral health, more participants reported yes than no ($n=17, 65.4\%$). Finally, more participants reported that they had some form of musical training or experience ($n=15, 57.7\%$). A more complete profile of participant responses is found in Table 1.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your age?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-30 years</td>
<td>8</td>
<td>30.8</td>
</tr>
<tr>
<td>31-40 years</td>
<td>10</td>
<td>38.5</td>
</tr>
<tr>
<td>41-50 years</td>
<td>5</td>
<td>19.2</td>
</tr>
<tr>
<td>51-60 years</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>61+ years</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>What is the gender that you identify with?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman/female</td>
<td>18</td>
<td>69.2</td>
</tr>
<tr>
<td>Man/male</td>
<td>8</td>
<td>30.8</td>
</tr>
<tr>
<td>What is your ethnicity?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>4</td>
<td>15.4</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3</td>
<td>11.5</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>3</td>
<td>11.5</td>
</tr>
<tr>
<td>Asian</td>
<td>15</td>
<td>57.7</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Employed Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>9</td>
<td>34.6</td>
</tr>
<tr>
<td>Activities</td>
<td>11</td>
<td>42.3</td>
</tr>
<tr>
<td>Social Services</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>Dietary</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Maintenance</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Medical Records</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>Have you observed a music therapist working in behavioral health before?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td>65.4</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>34.6</td>
</tr>
<tr>
<td>Have you sung or played a musical instrument before?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>15</td>
<td>57.7</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>42.3</td>
</tr>
</tbody>
</table>
Of the 26 participants who responded to the survey, a total of 17 participants completed all the questions and items and the duration of their participation was longer than the length of the video (11 minutes and 30 seconds), a completion rate of 65.4%, with 1 participant partially completing the survey. Therefore, 9 participants were excluded from the following analyses.

**Statistical Assumptions**

A *t*-test was selected to determine if there was a difference between pre- and posttest questionnaire scores. A paired samples *t*-test was believed to be appropriate since it is used to determine whether the mean values of two matched groups, such as participant pretest-posttest scores, are different (McMillan & Schumacher, 2006). According to Green and Salkind (2011), the three statistical assumptions for paired samples *t*-test are that the “difference scores are normally distributed in the population, the cases represent a random sample from the population, and the difference scores are independent of each other” (p. 170). Prior to using the *t*-test, a Shapiro Wilk test was used to explore and test the data for the assumption of normality. This was necessary since, as stated above, the difference scores had to be distributed normally before using a *t*-test. (*n* = 17). The Shapiro Wilk was significant (*W* = 0.47, *p* < .001) and two outliers (falling outside the interquartile range using box plots) were removed from the subsequent analysis. After the outliers were removed (*n* = 17), Shapiro Wilk continued to be significant (*W* = 0.84, *p* = .008). Given continued non-normality the non-parametric Wilcoxon matched pairs test was used as there is no assumption of normality.

**Questionnaire Technical Characteristics**

Waldon (2016) speaks of the importance of ensuring the technical adequacy of research measures: Optimal objectivist measurement possesses acceptable levels of validity and reliability which allow for confident interpretation of results. A reliability analysis of the pre- and post-test
scores was performed to check for internal consistency. Results from Cronbach’s alpha (pretest, $a = .93$; posttest, $a = .92$) suggested that items, as a group, yielded an acceptable estimate of reliability. With regard to validity, analysis of the pre and post-test scores was performed to establish whether the questionnaire was measuring single or multiple constructs. To complete this, a Principal Components Analysis was used. The analysis suggested that the questionnaire measured a single factor, Relevance Beliefs, which accounted for 59% of the variance on the pre-test and 62% of the variance on the post-test. This single factor solutions were visually verified using scree plots.

**Inferential Analysis**

**Research Question 1: Is there an increase in Relevance Beliefs scores from pre-test to post-test after watching the in-service video?**

A Wilcoxon matched pairs test was conducted to determine whether there was a difference between the pre- and posttest questionnaire scores. Results of the analysis indicated that there was a significant change in participants’ Relevance Beliefs, $z = -2.969, p = .0015, r = .51$. According to Sawilowsky (2009) $r = .51$ is considered a moderate to large effect size. $r$ is the way the effect size is indicated when a non-parametric version is used because the assumptions of the parametric paired samples $t$-test are not met. The results suggest that there was a favorable change ($Md. = -0.19$) in participants’ relevance beliefs about music therapy in a behavioral health setting.
Research Question 2: Do staff members’ Relevance Beliefs pre- and post-questionnaire change scores vary by: employed department, previous experience observing music therapy, and having a musical background?

Due to a limited sample size, running inferential statistical techniques to address the second research question may have led to invalid statistical conclusions due to low statistical power (i.e., that an inferential test has a small chance of detecting an effect or that results may be distorted by error). Therefore, Table 2 presents descriptive statistics contrasting the results by subgroups formed on the basis of demographic background variables. The variables include: Employed department, whether the participant had observed a music therapist working in behavioral health before, and whether the participant had sung or played a musical instrument before.
Table 2

Relevance Beliefs Scores by Demographics

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th></th>
<th>Posttest</th>
<th></th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Employment Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>4.67</td>
<td>0.47</td>
<td>4.78</td>
<td>0.38</td>
<td>-0.12</td>
</tr>
<tr>
<td>Activities</td>
<td>4.38</td>
<td>0.33</td>
<td>4.65</td>
<td>0.30</td>
<td>-0.27</td>
</tr>
<tr>
<td>Previously Observed MT</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4.41</td>
<td>0.47</td>
<td>4.59</td>
<td>0.46</td>
<td>-0.18</td>
</tr>
<tr>
<td>No</td>
<td>4.48</td>
<td>0.40</td>
<td>4.69</td>
<td>0.24</td>
<td>-0.21</td>
</tr>
<tr>
<td>Musical Background</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4.32</td>
<td>0.35</td>
<td>4.49</td>
<td>0.35</td>
<td>-0.17</td>
</tr>
<tr>
<td>No</td>
<td>4.50</td>
<td>0.51</td>
<td>4.70</td>
<td>0.45</td>
<td>-0.20</td>
</tr>
</tbody>
</table>
CHAPTER 5: DISCUSSION

The study had two purposes. The first one, was to investigate the effect of a short video presentation on staffs’ beliefs about the relevance of music therapy in behavioral health. The second purpose was to find out if staff members’ Relevance Beliefs pre- and post-questionnaire change scores varied by employed department, previous experience observing music therapy, or having a musical background. 26 individuals responded to the questionnaire, 17 respondents (65.4%) completed all the questions and items and did so during a length of time that was longer than the length of the video, 8 participants (30.8%) completed all the questions and items but did so during a length of time that was shorter than the length of the video, and one individual (3.9%) partially completed the questionnaire.

Findings by Research Question

Research Question 1

The first question was, “Does a short video presentation about music therapy in behavioral health have a positive effect on staff members’ relevance beliefs (post-questionnaire responses)?” Findings suggested that there was a significant difference between staff members’ Relevance Beliefs as measured by pre- and post-questionnaire responses. This large to moderate effect size \( r = .51; \) Sawilowsky, 2009) means that there was evidence to believe that the video was effective when it came to increasing staffs’ positive beliefs in relation to the relevance of music therapy in behavioral health. This finding was similar to those of Silverman and Chaput (2011) in that their results also demonstrated an increase from pre- to post-test in staffs’ perceptions about music therapy after viewing a twenty-minute in-service.
**Research Question 2**

The second question was, “Do staff members’ Relevance Beliefs pre- and post-questionnaire change scores vary by: employed department, previous experience observing music therapy, and having a musical background?” Due to a limited sample size, descriptive statistics were used to portray the results. Based on the differences in means for employed department, it was observed that the difference between pre- and post-test scores were larger for those working in activities than nursing. For previous experience observing music therapy, the differences in means between pre- and post-test scores were larger for those who had not seen music therapy before when compared with those who had. As for those having a musical background, the differences in means between pre- and post-test scores were larger for those who did not have a musical background in comparison with those who did have a musical background. It may be that activities staff had larger differences in means than nursing staff because of their greater exposure to the music therapist. It is possible that greater exposure would typically lead to more accurate beliefs, but in this case, it may be that it led to misconceptions that were not addressed until the viewing of the video. As for the results showing that those who had not observed music therapy had larger differences in means, it may be that there were more misconceptions among those who had not observed music therapy because of a lack of exposure. Perhaps Relevance Beliefs were changed after the video was viewed. Finally, it’s possible that those who did not have a musical background evidenced larger differences in means (from pretest to posttest) because those who did have a musical background had experienced some of the therapeutic benefits of actively engaging with music. Although Darsie (2009) mentioned that certain professionals rated some test items significantly different than other professionals, the results for this research question allowed us to get an idea as to whether nursing or activities staff
members were the most impacted from the in-service video. Had the sample size for other departments been larger, the analysis could have also included participants from social services, dietary, housekeeping, and maintenance.

**Limitations and Recommendations**

As with all research, limitations are present which will be discussed with the hope that they will assist future research. Regarding participants, the respondents were staff members, who at the time of the study, were working at the facility where the researcher was employed. Due to already established relationships, it may be that some participants did not express negative beliefs about the relevance of music therapy in behavioral health because it might negatively impact these relationships. Investigators may remedy this by running the study at a facility where the researcher is not currently employed.

Another limitation came from the use of an online (non-interactive) training and questionnaire. Considering that there are many trainings of this type, and that some trainings are the same material from year to year, it is possible that some people are used to clicking through sections when it is not required to view the whole video/read through all the material. There is evidence that this may have happened during this study as 8 out of 26 participant responses were removed from analysis because the duration of their participation was not longer than the length of the video (11 minutes and 30 seconds). It would not have been possible for these 8 participants to have watched the entire video and completed all of the questions and material if the duration of their participation was not longer than that time. Future researchers may be able to address this issue by presenting the video and questionnaire, on-site, as a group video in-service to possibly increase full participation during the video.
Some threats to internal validity were present. As defined by McMillan and Schumacher (2006), “the internal validity of a study is a judgement that is made concerning the confidence with which plausible rival hypothesis can be ruled out as explanations for the results” (p. 258). The first threat to internal validity had to do with pretesting, an effect relating to the use of the same test being used as a pre-test and post-test. McMillan and Schumacher (2006) explain that this threat is possible whenever a pre-test is used because of the impact that the pretest can have on the participants during the post-test. Since the pre- and post-questionnaire measured Relevance Beliefs about music therapy in behavioral health, the participants’ exposure to the pre-questionnaire prior to the post-questionnaire may have caused some of them to think about the questions and possibly change their answers by the time that they completed the post-questionnaire. A future researcher may address this issue by having two different pre- and post-questionnaires that still measure that same concept but are not the same version.

The second threat to internal validity was subject effects. As explained by McMillan and Schumacher (2006), subject effects occur when the participants’ behavior changes in response to the research situation. In this case, this threat is a possibility for two reasons: All participants were informed that the researcher was carrying out the study to complete a master’s program and all of the participants already had an established relationship with the researcher. It is possible that some participants answered positively in relation to their beliefs about the relevance of music therapy in behavioral health because they wanted the researcher to “get a good grade” or because they did not want to openly express negative beliefs about the relevance of music therapy because they knew who the researcher was. Future investigators may choose to address this threat to internal validity by conducting the study at a site where the researcher is not
currently employed or with participants who do not have an established relationship with the researcher.

A final threat to internal validity was attrition. As defined by McMillan and Schumacher (2006), attrition occurs when participants leave the study or when data are lost during the analysis. This threat to internal validity is a possibility, considering that 9 out of 26 participants were removed from the inferential analysis because their participation in the study was less than 11 minutes and 30 seconds (the length of the video) or because they did not complete all of the questions. This may have led to a loss of statistical power and loss of not knowing what their “beliefs” were and are left wondering. Keeping the 9 participants would have been beneficial considering that the use inferential statistical techniques, for the second research question, was not possible because of a small sample size. Future studies could address this threat to internal validity by recruiting for a larger sample size to provide some “protection” for statistical power because it would allow the flexibility to lose some participants.

As for external validity, although analysis related to the first research question, “Does a short video presentation about music therapy in behavioral health have a positive effect on staff members’ Relevance Beliefs (post-questionnaire responses)?” yielded statistically significant results, the sample size was small and so generalizability is limited. With that said, the study had some threats to external validity.

Setting/treatment interaction was a threat to ecological external validity due to the mode in which the intervention was delivered. McMillan and Schumacher (2006) explain that the existence of this threat leads to the generalization of the results being limited to the setting where the study was carried out. In this case, this threat is possible because the in-service was carried
out via a video presentation. Future researchers may be able to address this threat by providing the video in a live group setting.

An additional threat to external validity was selection of subjects. As explained by McMillan and Schumacher (2006), if you do not use a random sample from the population, then the results of the study may not apply more broadly. All 26 participants in the study were volunteers who either participated after receiving an email invitation, requested to be in the study, or participated because of a verbal invitation. Since the participants worked at the same facility as the researcher and knew that I was running the study as part of a research project to complete a master’s program, it may have been that they were more motivated or motivated for special reasons and responded differently to questions than a non-volunteer would have. Future studies can be designed to address this issue by running the study at a different facility where the researcher is not currently employed.

A third threat to ecological external validity is known as pretest-posttest sensitization. McMillan and Schumacher (2006) explain that this can occur if the pretest and posttest interact with the treatment in such a way that similar results can only be obtained if the same testing conditions are replicated. In this case, it may be that information from the pre-questionnaire primed participants for things that they should pay attention to in the video. Other researchers may be able to address this issue by having a control group that only receives the post-questionnaire to assess if the pre-questionnaire causes a significant difference in the post-questionnaire results for the experimental group that receives both the pre- and post-questionnaire.

Recommendations for future research include: Carrying out the study at a location(s) where the researcher is not employed to increase the possibility of having the participants answer
the questions openly and honestly; presenting the video and questionnaire, on-site, as a group video in-service to possibly increase full participation during the video; to use parallel forms of the questionnaire to offset limitation related to pretesting; having a larger sample size and having non-volunteers in the sample to increase the possibility of receiving more varied participant responses; and having a larger sample size to preserve statistical power in the event of losing participants. Finally, future researchers may be able to acquire more in-depth data related to the impact of the video and about participants’ Relevance Beliefs by including open ended questions in the pre- and post-questionnaire. Information from open-ended questions may provide answers as to why some participants decided not to watch the entire video and may add more clarity to the responses provided in the Beliefs about Music Therapy in Behavioral Health Questionnaire.

**Study Implications**

Given that there are still misconceptions about the role of music therapy in behavioral health, this study was carried out to see if a video in-service could have a positive impact on staff members’ Relevance Beliefs. Although the study did have some limitations, based on the statistical analysis completed for the first research question, there was evidence to suggest that the material that was presented through the video had a positive effect on staff members’ Relevance Beliefs. Pre-recorded in-service videos may serve as an effective tool to positively impact other professionals’ beliefs. It is a tool that can be used to advocate and to educate about the profession and has the flexibility to be shared at any moment with any facility, organization, group, or individual. Choi (1997) shared how the results from the study demonstrated a discrepancy between how music therapists and other professionals viewed the role and goals of the music therapist. This is still a concern, but it is an issue that can be addressed through a pre-recorded in-service video that educates other professionals about relevance of music therapy in
behavioral health. Further, Kurjenluoma and Rantanen (2017) highlighted that increased workload (that would be compounded by attending an in-person in-service) as a factor contributing to job stress. A pre-recorded in-service video provides a flexible option allowing more staff to attend at different times of the day without pulling too many staff from treatment units. Less staff off the floor may result in more work getting done.

**Conclusions**

The study included a total of 26 behavioral health professionals. All of the professionals were from the same behavioral health facility and varied in employed department. This study sought to answer two questions: “Does a short video presentation about music therapy in behavioral health have a positive effect on staff members’ Relevance Beliefs (post-questionnaire responses)?; and “Do staff members’ Relevance Beliefs pre- and post-questionnaire changes scores vary by: Employed department, previous experience observing music therapy, and having a musical background?” For the first question, the results indicated that there was a significant change in participants’ Relevance Beliefs and so there was evidence to suggest that a video presentation about music therapy did have a positive effect on staffs’ relevance beliefs. As for the second question, descriptive statistics were used to contrast the results by subgroups formed on the basis of demographic background variables. The variables included: Employed department, whether the participants had observed a music therapist working in behavioral health before, and whether the participant had sung or played a musical instrument before. Continued advocacy and education is needed to address misconceptions related to music therapy in behavioral health. Studying in-services will help identify best practices i.e., identifying effective delivery techniques and selecting what content is most helpful.
References


Midler, S. P., & Stokols, D. (2004). Physicians’ attitudes and practices regarding complementary and alternative medicine. *Behavioral Medicine, 30*(2), 73-82. [https://doi.org/10.3200/BMED.30.2.73-84](https://doi.org/10.3200/BMED.30.2.73-84)


[https://doi.org/10.1093/jmt/50.4.244](https://doi.org/10.1093/jmt/50.4.244)

Appendix A: Questionnaire Invitation

Dear Crestwood staff member,

My name is Jesus Garcia, and I am an employee at Crestwood manor. I am currently completing my master’s degree at the University of the Pacific and would like for you to participate in my study. The study involves answering some questions, watching a short video about music therapy in behavioral health, and answering some questions again. If you agree to be in this study, click on the link below. The questions and video will take you approximately 15-20 minutes to complete and will be open until 1/31/2023

Thank you for your consideration,
Jesus Garcia, MT-BC

Follow this link to the Survey:
Take the Survey
Or copy and paste the URL below into your internet browser:
https://dentalpacific.az1.qualtrics.com/jfe/form/SV_0qPn2UnSnCTRbhA?Q_DL=2P7h6FhS1iFta7c_0qPn2UnSnCTRbhA_CGC_GFzqQyVmKaHOjQ&Q_CHL=email
Appendix B: Informed Consent Form

Dear Prospective Participant:

Hello, I am Jesus Garcia, a graduate music therapy student at University of the Pacific. I would like to invite you to participate in this research project on staff members’ beliefs about music therapy in behavioral health settings. If you would like to participate, please click “I agree,” below. Your participation will involve completing a questionnaire, watching a short video about music therapy, and completing a follow-up questionnaire.

The pre video questionnaire, video, and post video questionnaire should take approximately 15 to 20 minutes to complete. Your participation is entirely voluntary. All responses are completely anonymous and confidential; your name will not appear anywhere on the questionnaire and please do not write/type your name on the questionnaire or in any fields. Completion and return of the questionnaires will constitute your consent to participate. We are not offering any compensation for participation in this research project.

There is minimal risk that the researchers may identify you as a research participant but your responses to the questionnaires will not be associated with your identity. Further, only I and my supervisor (Dr. Eric Waldon) will have access to your (and others’) responses; so, no one else will see how you responded to the questionnaire. The benefits which may reasonably be expected to result from your participation in this study are becoming more knowledgeable about music therapy in behavioral health, better utilizing music therapists to provide services to consumers, further employment of board-certified music therapists in behavioral health settings, appropriate job roles for music therapists in behavioral health settings, and more available therapeutic services for consumers.

By completing and submitting this survey you indicate that you have read and understand the information provided above, that your participation is completely voluntary, that you may withdraw your consent at any time and discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled, that you may print a copy of this form to keep for your records (following the post video questionnaire), and that you are not waiving any legal claims, rights or remedies. If you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact University of the Pacific Office of Research and Sponsored Programs to speak to someone independent of the research team at (209) 946-3903 or IRB@pacific.edu.

If you have any questions regarding the research project, feel free to contact one of us using the emails listed below. Thanks again for your help.

Sincerely,

Jesus Garcia, MT-BC
Music Therapy Graduate Student
(209) 478-2060
jegarcia@cbhi.net

Eric G. Waldon, Ph.D., MT-BC
Supervising Music Therapy Professor
(209) 946-2419
ewaldon@pacific.edu
Appendix C: Demographic Questionnaire

What is your age?
   a. 18-30 years
   b. 31-40 years
   c. 41-50 years
   d. 51-60 years
   e. 61+ years
   f. Prefer not to answer

What is the gender that you identify with today?
   a. Woman/Female
   b. Man/Male
   c. Non-binary
   d. Gender not listed

What is your ethnicity?
   a. White or Caucasian
   b. Black or African American
   c. Latino or Hispanic
   d. Asian
   e. Native American
   f. Native Hawaiian or Pacific Islander
   g. Two or more
   h. Other
   i. Prefer not to answer

Please specify your employed department
   a. Nursing
   b. Activities
   c. Social Services
   d. Dietary
   e. Housekeeping
   f. Maintenance
   g. Other

How many years have you been working in behavioral health? _________________
Have you observed a music therapist working in behavioral health before?

a. Yes
b. No

Have you sung or played a musical instrument before? (Church, school, hobby, or professionally)

a. Yes
b. No
Appendix D: Beliefs about Music Therapy in Behavioral Health Questionnaire

Please respond to each task according to how strongly you agree that it can be adequately and appropriately met by a board-certified music therapist in a behavioral health facility. On a scale of 1 to 5, 1 will be strongly disagree and 5 will be strongly agree.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>disagree</td>
<td>Not sure</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

How strongly do you agree that a music therapist can adequately and appropriately:

- assess the emotional and social needs of the client
- improve the quality of life of the client
- assist the client with managing anxiety symptoms
- assist the client with managing depression symptoms
- assist the client with achieving a more relaxed state
- provide the client with a distraction from emotions and thoughts that cause distress
- provide the client opportunities that encourage expression of thoughts
- provide the client opportunities that encourage expression of emotions
- meet with interdisciplinary treatment team members to share information concerning the client’s emotional and social health
- set therapeutic goals to address assessed emotional and social needs of the client
- educate other staff about the role of music therapy in behavioral health
- implement interventions as supplemental treatment to augment the standard care that is already addressing physiological and psychiatric needs of the client