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The Implementation of Music Within Communication Intervention and Its Effect on Communication Development

Rebecca Dunn

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The Implementation of Music Within Communication Intervention and Its Effect on
Communication Development

by

Rebecca Dunn

A Thesis
Submitted to the Honors College of
The University of Southern Mississippi
in Partial Fulfillment
of Honors Requirements

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ABSTRACT

The purpose of this study was to evaluate how and under what circumstances licensed speech-language pathologists incorporate music within communication intervention and to better understand perceptions towards the incorporation of music within speech or language therapy. A survey was developed based on the review of related literature and then entered on the Qualtrics[®] server for data collection and analysis. Once IRB approval was secured, the survey was then disseminated via a Facebook group for licensed speech-language pathologists. The author used Qualtrics[®] to collect and analyze the data, which was then used to determine when and how music was added, as well as perceptions of effectiveness and benefits of music incorporation, to communication intervention settings.

Results from this survey showed that speech-language pathologists incorporate music within communication intervention often, and it is perceived to add value to therapy settings. However, there were differences in terms of when and how music was used and for which clients and diagnoses. The results indicated that participants found value in interprofessional collaboration between speech-language pathologists and music therapists within communication intervention environments.

Keywords: speech-language therapy, speech-language pathology, music, music therapy, communication intervention, speech

DEDICATION

To my people, this is for you! None of this would have been possible without your unwavering love and kindness. Mom and dad, thank you for always ensuring I was equipped with the tools and support needed to succeed in life.

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LIST OF ABBREVIATIONS

ASD	Autism Spectrum Disorder
ASHA	American Speech-Language-Hearing Association
CIMaLT	Co-Delivered Integrative Music and Language Therapy
IRB	Institutional Review Board
MIT	Melodic Intonation Therapy
SLP	Speech-language pathologist

CHAPTER I: INTRODUCTION

In 2005, Jacqueline Hinckley published a case study that explored the use of music in speech-language therapy. Often referred to as “the piano lesson”, Hinckley (2005) evaluated an aphasia-diagnosed, former piano teacher who was able to correctly formulate and project phrases when placed in a stimulatory environment that mimicked a piano lesson with the speech-language pathologists. When asked questions in a normal social environment, the client was unable to speak in correlation with their thoughts, but a piano lesson environment showed the neurological connection between music and speech. It is possible that the progress made by the client in this case study would not have been achievable through other methodologies or therapeutic strategies (Hinckley, 2005). This study was especially thought-provoking to me and began my interest in the relationship between music and communication intervention. After reviewing research conducted by numerous speech-language pathologists, there appears to be positive effects on communication intervention whenever music is implemented. The purpose of this study was to evaluate why speech-language pathologists incorporate music within sessions and what value was added through this strategy.

CHAPTER II: REVIEW OF THE LITERATURE

Various researchers have evaluated the practice of implementing music within communication intervention settings. Included below is a review of literature related to the incorporation of music in speech and language therapy. Topics explored include benefits to patients with certain diagnoses, relationship building elements in clinical settings, and the effects of interprofessional collaboration.

Benefits to Patients with Certain Diagnoses

Previous studies have evaluated and confirmed the implementation of music within communication intervention has been evaluated and confirmed as an effective strategy for certain communication diagnoses. This section outlines examples that are related to neurogenic communication disorders, hearing impairments, and autism spectrum disorder. Though limited in terms of exactly what kinds of music were used and how music affected clients' progress, findings seemed to indicate that the integration of music was perceived as beneficial in these cases.

Neurogenic Communication Disorders

Some examples of neurogenic communication disorders include clients with aphasia, apraxia of speech, and dysarthria. Incorporating music therapy within communication intervention had an impact on clients with neurogenic communication disorders when some other techniques might not have (Hobson, 2006). Improvement in speech therapy as a result of music implementation can be seen in "the piano lesson" study, where a clinician implemented music within therapy sessions targeting aphasia (Hinckley, 2005). Clients with aphasia have impaired language expression and comprehension skills due to damage in the language controls within the brain (Caplan,

2001). The patient in Hinckley's case study (2005) was able to recall and express previous teaching techniques through hands-on therapy methods implementing music.

Clients with aphasia, as well as apraxia, also progressed more quickly through therapy when Co-Delivered Integrative Music and Language Therapy (CIMaLT) was utilized (Johnson et al., 2019). A few qualities of CIMaLT that target speech-language and music goals include multi-modal cues, clinician collaboration throughout the entire treatment process, live music, and a balanced implementation (Johnson et al., 2019). Shared neural pathways amongst melody/rhythm and speech/language can be utilized to progress through the speech-language therapy treatment of patients with neurological disorders. Because of these shared neurological pathways, music added value within these clinical settings where other techniques might not be as effective (Rogers & Fleming, 1981). An example of treatment in this case could include melodic intonation therapy (MIT), which is a technique used for treating verbal expression of clients (Zumbansen et al., 2014). Implementing music in the treatment of clients with neurogenic communication disorders is shown to be beneficial in these studies.

Hearing Impairments

Cunningham and Tucci (2017) noted that impaired communication skills was a primary effect of hearing impairments. However, the implementation of music in therapy sessions has been shown to help with the perception of prosody, perception of speech in noise, and potentially language skills (Torppa & Huotilainen, 2019). MIT could also be utilized with clients who have hearing impairments (Zumbansen et al., 2014).

Autism Spectrum Disorder

The integration of music in communication therapy has also shown to be effective with clients diagnosed with autism spectrum disorder (ASD). Lim (2007) found that participants who received music and speech training increased their language acquisition results from a prior test. Specifically, low functioning ASD clients showed greater improvement after music training in comparison to the results from speech training alone (Lim, 2007). Children with ASD might perceive linguistic information imbedded in music better than traditional speech therapy (Lim, 2007), thus proving the benefits of incorporating music.

Effects of Relationship Building

Establishing collaboration between clinician and client within therapy settings is critical to ensuring motivation is present during sessions. Doing this can increase motivation, thus making a potentially difficult and frustrating process become more efficient and enjoyable for the client. Damico and Whited (2020) found that collaboration and shared interests between client and clinician resulted in a willingness to learn and participate within the therapy setting. When music is incorporated within communication intervention as a means of collaboration between client and clinician, a relationship is built and participation during sessions increases as seen in Hinckley's study (2005). While previous studies indicated this important link between music integration and relationship building, findings did not explore perceptions as to why music was an integral part of these formed bonds, what kinds of music were used, or for what age groups these strategies were most effective.

Interprofessional Collaboration Improves Therapy

Interprofessional collaboration between speech-language pathologists and music therapists has been shown to improve the therapy process and progression through it. Johnson et al. (2019) evaluated CIMaLT and determined that this method is productive and valuable in communication intervention settings. In addition, Geist et al. (2021) found that incorporating interdisciplinary methods has positive effects on speech and language development such as increased motivation, increased engagement, and more productive therapy sessions. Findings in this review of literature did not explore perceptions of how often or under what circumstances speech-language pathologists collaborated with music therapists.

Summary of Previous Research

Based on previous research, there are benefits of interprofessional collaboration amongst music therapists and speech-language pathologists that could bring about immense benefits for clients with specific diagnoses and build relationships between client and clinician in ways that other techniques cannot. The purpose of the present study was to further explore the incorporation of music in communication intervention and the perceived benefits of these integrations. Studies indicate that the incorporation of music therapy within communication intervention positively impacts clients with certain diagnoses in individual cases, but little research has shown whether these findings are perceived as field-wide standard practices. Furthermore, the partnership of music and speech therapy has been shown to impact the relationship building process during communication intervention, but other perceived benefits of this integration have not been investigated. Specific incorporation methods have been studied as ways to improve

therapy progression, but strategies explored in these papers do not include many of the commonly used examples of perceived best practices. Other methods that speech-language pathologists and music therapists utilize in therapy settings have not been evaluated fully. The present study aimed to build on previous work by examining when and how music was integrated in communication intervention, as well as perceived benefits to clients and therapists, and to speech-language pathologists and music therapist collaboration efforts.

The following research questions were posed to better understand ways in which music is used and for what purposes:

1. For which clients or diagnoses do therapists integrate music into communication intervention?
2. In what ways do therapists incorporate music into communication intervention?
3. What benefits are noticed from this partnership between music and speech therapy?

CHAPTER III: METHODOLOGY

To answer my research questions, a questionnaire was constructed. Following IRB approval, the survey was distributed to certified speech-language pathologists via targeted social media groups. The process for the data collection and analysis is included below.

Sample

I targeted licensed speech-language pathologists as potential participants for the survey. This group was chosen based on training and experience with communication intervention strategies and practices. No effort was made to account for demographic variations, such as race/ethnicity, sex/gender, region of the country, etc. To be included in the sample, licensed speech-language pathologists must also have been a member of the Speech Pathologists at Large Facebook group. The decision to solicit via social media, rather than professional Listserv or other means, was made for convenience, expedience, and cost efficiency. The survey, along with an informative graphic, was posted on the group twice to gain responses from members of the group. Consent was gained at the beginning of the survey for participants to certify that they were licensed. It should be noted that participants were able to withdraw their consent at any time by simply exiting the survey.

Procedure

The data were collected through the Qualtrics® website. My former advisor, Kelly Koch, collaboratively wrote the survey questions with me. Once the questions were finalized with Dr. Ashley Allen, I submitted my study information to The University of Southern Mississippi's Institutional Review Board (IRB) to gain the necessary approval.

Once approved, I posted the survey twice to the Speech Pathologists at Large Facebook group.

The post included an informational graphic (see Appendix C) and a link to the survey. The consent form placed at the beginning of the survey stated that participants must be a licensed speech-language pathologist and listed the purpose, description, benefits, and risks of the study along with a confidentiality statement and participant's assurance. The goal was to receive at least 30 responses from certified speech-language pathologists before closing the survey. I kept the survey open for 4 weeks before closing the form.

Variables

The independent variables within this research were the number of therapists that implement music within their communication intervention settings and its effectiveness on communication development. The dependent variable within this research asked if and how music had an impact within these settings. Questions were asked in various forms: yes/no, multiple-choice, and fill-in-the-blank. When "other (please specify)" was given as an answer choice, participants were given a blank to explain their reasoning.

Analysis/Design

Set up as an exploratory study, the data collected from this survey was used to determine if and how music was incorporated within communication settings. No identifiable information was obtained from the participants in this study due to the wording and nature of the questions asked. Questions were asked regarding demographic information, instances where music was utilized as part of communication therapy, strategies for music integration, and perceived benefits. The full survey is included in

Appendix D. Once I received my target of 30 responses, I used the Qualtrics® platform to produce the descriptive statistics. Data were stored solely on the Qualtrics® platform, and once reviewed, the survey and its responses were permanently deleted from the website.

CHAPTER IV: RESULTS

Though the initial goal was 20 participants, 38 responses were eventually collected. Included below are the results for each question asked in the survey and slight discussion surrounding the findings. As previously mentioned, there were both multiple-choice and fill-in-the-blank options included in this survey, so that is important to note while viewing these results.

Question 1: How many years have you practiced as a Speech-Language Pathologist?

All 38 participants responded to this question. The category of 0-5 years had two responses (5.26%), 5-10 years had six responses (15.79%), 10-20 years and 20-30 years each had nine responses (23.68%), and 30-40 years and 41+ years each had six responses (15.79%).

Table 1: Years as a SLP

How many years have you practiced as a Speech Language Pathologist?	%	<i>n</i>
0-5 years	5.26%	2
5-10 years	15.79%	6
10-20 years	23.68%	9
20-30 years	23.68%	9
30-40 years	15.79%	6
41+ years	15.79%	6
Total	100%	38

Question 2: What age group do you primarily work with?

All 38 participants answered this question. The category of 0-5 years old received 13 responses (34.21%), 5-15 years old received eight responses (21.05%), 15-30 years old received four responses (10.53%), and 30+ years old received 13 responses (34.21%).

Table 2: Age Group of Clients

What age group do you primarily work with?	%	<i>n</i>
0-5 year olds	34.21%	13
5-15 year olds	21.05%	8
15-30 year olds	10.53%	4
30+ year olds	34.21%	13
Total	100%	38

Question 3: In what setting do you primarily practice?

Based on the 38 responses received for this question, 12 participants work in private practice (31.58%), five participants work in hospitals/clinics (13.16%), 11 participants work in education/schools (28.95%), three participants work in college/universities (7.89%), six participants work in health care facilities (15.79%), and one participant works elsewhere, but they did not specify (2.63%).

Table 3: Primary Place of Practice

In what setting do you primarily practice?	%	<i>n</i>
Private practice	31.58%	12
Hospitals/Clinics	13.16%	5
Education/Schools	28.95%	11
College/Universities	7.89%	3
Health Care Facilities	15.79%	6
Other (please specify)	2.63%	1
Total	100%	38

Question 4: Do you implement music within your therapy setting?

38 responses were recorded for this question. The answer choice “yes, always” received five responses (13.16%), “yes, typically” received four responses (10.53%), “yes, sometimes” received 11 responses (28.95%), “yes, rarely” received 11 responses (26.32%), and “no” received eight responses (21.05%).

Table 4: Use of Music in Therapy Settings

Do you implement music within your therapy setting?	%	<i>n</i>
Yes, always	13.16%	5
Yes, typically	10.53%	4
Yes, sometimes	28.95%	11
Yes, rarely	26.32%	10
No	21.05%	8
Total	100%	38

Question 5: What is your opinion of using music in speech therapy?

All 38 participants answered this question, and the results were as follows: “music has value in therapy” had 27 responses (71.05%), “music has no value in therapy” had two responses (5.26%), “music distracts from therapy work” had three responses (7.89%), and “music neither adds to or takes away from therapy sessions” had six responses (15.79%).

Table 5: Opinion of Music in Speech Therapy

What is your opinion of using music in speech therapy?	%	<i>n</i>
Music has value in therapy.	71.05%	27
Music has no value in therapy.	5.26%	2
Music distracts from therapy work.	7.89%	3
Music neither adds to or takes away from therapy sessions.	15.79%	6
Total	100%	38

Question 6: Please select the following benefits of implementing music in communication intervention. Check all that apply.

Participants were allowed to select multiple answers to this question, yielding 65 responses. Of those, the results were as follows: “using music in communication intervention increases motivation” ($n = 7, 10.77\%$); “using music in communication intervention increases participations” ($n = 11, 16.92\%$); “using music in communication

intervention increases interaction during therapy sessions” ($n = 15, 23.08\%$); “using music in communication intervention increases progression rate” ($n = 9, 13.85\%$); “using music in communication intervention teaches what others cannot” ($n = 9, 13.85\%$); “all of the above” ($n = 9, 13.85\%$); and “other (please specify)” ($n = 8, 12.31\%$). For the “other (please specify)” selection, three participants stated that using music in communication intervention helped clients relate more to the sessions, three participants stated that using music in communication intervention uplifted the moods of their clients, and two participants did not specify.

Table 6: Benefits of Implementing Music

Please select the following benefits of implementing music in communication intervention. Check all that apply.	%	<i>n</i>
Using music in communication intervention increases motivation.	10.77%	7
Using music in communication intervention increases participation.	16.92%	11
Using music in communication intervention increases interaction during therapy sessions.	23.08%	15
Using music in communication intervention increases progression rate.	9.23%	6
Using music in communication intervention teaches what others cannot.	13.85%	9
All of the above.	13.85%	9
Other (please specify)	12.31%	8
Total	100%	65

Question 7: What clients of communication intervention sessions do you include music with?

This question received a total of 104 responses. When asked about which diagnoses they used music with, participants answered as follows: aphasia ($n = 8, 7.69\%$); autism ($n = 9, 8.65\%$); dementia ($n = 7, 6.73\%$); fluency disorders ($n = 8, 7.69\%$); language disorders ($n = 25, 24.04\%$); resonance disorders ($n = 5, 4.81\%$); speech disorders ($n = 19, 18.27\%$); TBI ($n = 5, 4.81\%$); voice disorders ($n = 11, 10.58\%$); all of

the above ($n = 6, 5.77\%$); and other (please specify) ($n = 1, 0.96\%$). The one person who responded with the last answer stated that they include music with clients with apraxia.

Table 7: Clients Where Music is Used

What clients of communication intervention sessions do you include music with?	%	<i>n</i>
Clients with Aphasia	7.69%	8
Clients with Autism	8.65%	9
Clients with Dementia	6.73%	7
Clients with Fluency Disorders	7.69%	8
Clients with Language Disorders	24.04%	25
Clients with Resonance Disorders	4.81%	5
Clients with Speech Disorders	18.27%	19
Clients with TBI	4.81%	5
Clients with Voice Disorders	10.58%	11
All of the above.	5.77%	6
Other (please specify)	0.96%	1
Total	100%	104

Question 8: Is there an age limit for involving music in communication intervention?

All 38 participants answered this question. When asked if there is an age limit for including music, 13 people (34.21%) answered “yes (please specify)” while 25 people (65.79%) people answered “no”. For those who answered yes, 11 participants said that they only use music/songs with children, and two participants stated that they either use music with younger clients or older clients depending on the diagnosis, special interests shown by the client, and therapy progression.

Table 8: Age Limitations

Is there an age limit for involving music in communication intervention?	%	<i>n</i>
Yes (please specify)	34.21%	13
No	65.79%	25
Total	100%	38

Question 9: How do you incorporate music in intervention sessions? Check all that apply.

This question received a total of 69 responses, and, once again, participants were allowed to select multiple answer choices for this question. The results collected from this question are as follows: “you and the client take turns singing to each other” ($n = 15$, 21.74%); “you and the client sing music together” ($n = 15$, 21.74%); “you and the client play a musical instrument” ($n = 5$, 7.25%); “you and the client listen to music together” ($n = 14$, 20.29%); “the music plays in the background” ($n = 8$, 11.59%); “other (please specify)” ($n = 7$, 10.14%); and “all of the above” ($n = 5$, 7.25%). Of the responses from the other selection, three participants stated that using music in communication intervention helped clients relate more to the sessions, three participants stated that using music in communication intervention uplifted the moods of their clients, and two participants did not specify. When “other (please specify)” was marked as a selection, four of the participants cited the clinician singing to the client and three respondents cited “goodbye songs” to incorporate music.

Table 9: How Music Is Incorporated

How do you incorporate music in intervention sessions? Check all that apply.	%	<i>n</i>
You and the client take turns singing to each other.	21.74%	15
You and the client sing music together.	21.74%	15
You and the client play a musical instrument.	7.25%	5
You and the client listen to music together.	20.29%	14
The music plays in the background.	11.59%	8
Other (please specify)	10.14%	7
All of the above.	7.25%	5
Total	100%	69

Question 10: Is there a specific genre of music or type of songs that you incorporate in therapy?

All 38 participants responded to this question, and 14 (38.84%) answered that they do incorporate a specific genre of music or type of songs within their sessions while 24 (63.16%) answered that they do not. For the 14 that answered “yes (please specify)”, ten of those answers noted age-appropriate music, two noted acoustic music, and two respondents did not specify.

Table 10: Specific Music Used

Is there a specific genre of music or type of songs that you incorporate in therapy?	%	<i>n</i>
Yes (please specify)	36.84%	14
No	63.16%	24
Total	100%	38

Question 11: Is there a specific genre of music or type of songs that you do NOT incorporate in therapy?

All but one of the 38 respondents answered this question. Eight participants (21.62%) answered “yes (please specify)”, and 29 participants (78.38%) answered “no”. For the specification portion of the yes answer choice, seven people noted that any unprofessional/inappropriate music or music with curse words would not be incorporated within therapy settings. One person did not specify whenever they selected the yes option.

Table 11: Specific Music Not Used

Is there a specific genre of music or type of songs that you do NOT incorporate in therapy?	%	<i>n</i>
Yes (please specify)	21.62%	8
No	78.38%	29
Total	100%	37

Question 12: Have you ever worked or considered working with a music therapist?

Of the 38 participants of the survey, 28 (73.68%) of them answered that “yes” to whether they would consider working with or have worked with a music therapist, and ten (26.32%) of the respondents said they would not consider working with or have not worked with a music therapist.

Table 12: Considerations Towards Working with a Music Therapist

Have you ever worked or considered working with a music therapist?	%	<i>n</i>
Yes	73.68%	28
No	26.32%	10
Total	100%	38

CHAPTER V: DISCUSSION AND CONCLUSION

Discussion

The purpose of this study was to better understand the uses and potential benefits of the integration of music in speech-language therapy. Results of the survey are discussed below as they relate to the proposed research questions. In addition, findings not directly linked to specific research questions, as well as implications for the profession and for future research, are outlined in this section.

Question 1: For which clients or diagnoses do therapists integrate music into communication intervention?

Survey question seven asked participants to identify the diagnoses that they incorporated music into during speech-language therapy sessions. An overwhelming number ($n = 44$, 42.01%) of participants selected language and speech disorders as areas where they frequently use music in therapy. Only eight participants stated that they incorporate music with clients diagnosed with aphasia. This was a surprising finding, because it does not align with previous studies that heavily incorporated music in therapy for aphasia-diagnosed clients (Hinckley, 2005; Hobson, 2006; Johnson et al., 2019; Rogers & Fleming, 1981). However, it is worth noting that six participants selected “all of the above” for this specific question, which would incorporate therapy for aphasia-diagnosed clients. Perhaps the total number of speech-language therapists who use music in therapy for aphasia-diagnosed clients is closer to 14 (36.8%). When “other (please specify)” was chosen, apraxia was noted as a diagnosis where music could be implemented; this is supported by findings in the review of literature (Hobson, 2006; Johnson et al., 2019).

Regarding age and the implementation of music, most participants ($n = 25$, 65.79%) selected that there was no age limit. However, it should be noted that when an age limit was identified by participants, 11 respondents cited only using music with children. This finding is curious, and it is unclear from this study why speech-language therapists use music in therapy for children but not adults or geriatric patients. It might be because therapists are more comfortable or have received more training with music integration with younger clients, but more research is needed to better understand why this might be occurring. Two participants also stated that they either use music with younger or older clients depending on their client's diagnosis, interests, and therapy progressions. This finding was intriguing because it shows the specialization of methodologies incorporated in the speech-language pathology field, as was also noted in the review of literature (Damico & Whited, 2020; Hinckley, 2005; Johnson et al., 2019; Torppa & Huotilainen, 2019; Zumbansen et al., 2014).

Question 2: In what ways do therapists incorporate music into communication intervention?

Question nine asked participants to identify ways in which they incorporate music. "Singing to one another" and "singing with each other" both received the most responses ($n = 15$ for both). This collaboration is supported by Damico and Whited (2020) and Hinckley (2005) and might be an indication of the relationship building benefit music integration that is discussed in the review of literature. Notably, four participants answered that they sing to the client, and three respondents cited "goodbye songs" as a means of incorporating music within communication intervention.

According to the survey, most clinicians ($n = 24$) do not incorporate a specific genre of music in therapy sessions. Of the 14 respondents who do, ten noted that the selected music should be age-appropriate, two noted that they use acoustic music, and two did not fill in the provided blank. It is unclear from the findings of the present study how and for what purposes acoustic music is integrated into speech-language therapy. Hinckley's study (2005) supports the citation of acoustic music being implemented, but further research in this area might be helpful to better understand how and why therapists might use this specific kind of music in a therapy setting. When asked if there was a specific genre of music not incorporated, eight answered yes; of those, seven noted that music should not be unprofessional or inappropriate for the clinical environment. The theme of age-appropriateness should be taken into consideration when selecting music for communication intervention.

Question 3: What benefits are noticed from this partnership between music and speech therapy?

A multiple-choice option was given for a survey question evaluating the benefits of implementing music. Of the responses, it should be noted that using music as a means of increasing interaction and participation was selected most. This collaboration is supported by Damico & Whited (2020). For the "other (please specify)" responses, three respondents stated that this implementation helped clients relate more to their sessions, which is evidenced by the "Piano Lesson" (Hinckley, 2005). Interestingly, three participants answered that music uplifted clients' moods within sessions (Damico & Whited, 2020).

Other Findings

When asked if they used music within therapy sessions, almost 80% of participants ($n = 30$) answered that they do incorporate music, but the frequency of music integration varied. Answers to this question seem to align with the responses that 71.05% of respondents valued music integration in therapy. Something interesting to note is that six participants (15.79%) said music neither adds to or takes away from therapy sessions. However, given 30 participants (79.95%) said they incorporate music in their sessions, it appears that some do use music in the context of therapy regardless of their opinion of its value. It might be that therapists integrate specific methods or are replicating strategies from their training without thinking about their specific benefits, or it might be that they do not consider relationship building or client enjoyment as ‘therapeutic benefit’. More research is needed to fully understand why respondents do not perceive the benefit of music integration in therapy settings or that they would choose to incorporate music regardless of their views.

More than 73% of respondents stated that they would consider working with or have worked with a music therapist. While this percentage is surprisingly high, it is interesting that 27% of participants answered no. Future research is needed to evaluate why these speech-language pathologists do not incorporate music within communication intervention and under what contexts collaboration between speech-language and music therapists has occurred. In addition, research in this area might shed light on whether the amount of training, increased comfort with music and therapy strategies, and support and/or partnerships with music therapists might increase the prevalence and benefit of music integration into communication therapy.

Though responses to survey questions were mostly consistent, with all 38 participants answering each question, it is worth noting that some participants failed to fill in the open-ended blank when asked to specify on certain questions. It's possible that some questions did not intrigue participants, or perhaps they didn't view these questions as applicable to the overall research, or maybe they were simply skipping these added steps to expedite completion. Because these fill-in-the-blank options were designed to add some depth in understanding about music within therapy and types of music implemented, more research is needed to shed light on the process of choosing music for incorporation and the benefits of implementing music.

Implications for the Field

Based on the survey responses and review of literature, the implementation of music within communication intervention does have value. As new information surrounding this topic occurs, it seems likely that more speech-language pathologists might be inclined to thoughtfully incorporate music into speech-language therapy sessions. Certain methodologies, such as MIT and CIMaLT, may become new standard techniques for clients with certain diagnoses, and new and innovative techniques may continue to evolve and become mainstream in therapeutic sessions. From the results of this study, it does seem that speech-language pathologists might at least consider the benefits of incorporating music, collaborating with music therapists, and evaluating progress rates among their variously diagnosed clients.

Limitations and Suggestions for Future Research

Though this study added information to the larger body of knowledge about how and under what circumstances speech-language therapists incorporate music in their

sessions, there were limitations to it that affected the scope and interpretation of the data gleaned from it. For example, demographic questions related to race, region, ethnicity, and gender were not included in the data collection. Future studies might be able to shed light on how these factors impact one's perceptions and/or practices of music implementation in communication intervention.

In addition, the findings from this study raised additional questions that should be explored in future research. Examples of new or follow-up topics include instances of specific therapeutic methods that have contributed to accelerated progress; strategies for determining when and how to incorporate music in sessions; measurement tools for tracking progress rates in therapy; types of clients or diagnoses who respond best to music; and specific reasons for not integrating music into communication intervention sessions. Utilizing qualitative methodology in the form of personal interviews might prove to be beneficial to obtain more specific information about these topics.

The setup of the survey allowed for a variety of responses to be selected for certain questions, but this caused the analysis and interpretation of these questions to be difficult. Should a researcher replicate this survey, it is recommended that the multiple-choice questions be separated so that answers are more focused and easier to analyze. This strategy might also encourage participants to use the "other" question block to add deeper meaning to their answers.

Conclusion

This survey received responses from certified speech-language pathologists with various years of experience, client age ranges, and workplace environments. Results indicated that there are numerous speech-language pathologists integrating music within

their sessions, but the frequency and strategies used to incorporate it differs based on client, diagnosis, environment, and therapy plans. While survey answers showed that speech-language pathologists incorporate music within their sessions regularly, occurrences of music integration appear to depend on the clients' needs and therapy plans, which seems to make sense and is corroborated in the review of literature. In addition, the majority (70%) of participants agreed that music added value to therapy sessions. As music integration in communication intervention seems to be largely supported and perceived to be helpful to clients' progress, more research is needed in this area to better understand specific strategies and diagnoses in which music is most helpful.

APPENDIX A: PARTICIPANT CONSENT LETTER

PROJECT INFORMATION		
Project Title: The Implementation of Music Within Communication Intervention and Its Effect on Communication Development		
Protocol Number: 23-0168		
Principal Investigator: Rebecca Dunn	Phone:	Email:
	601-	Rebecca.
	606-	Dunn@u
	4631	sm.edu
College: Nursing and Health Professions	School and Program: Speech and Hearing Sciences	
RESEARCH DESCRIPTION		
<p>1. Purpose: The purpose of this study is to evaluate the ways in which licensed Speech Language Pathologists incorporate music within communication intervention and the perception towards incorporating music. This investigation also evaluates the reason for incorporating music and whether this modality of treatment has greater benefits as opposed to other methods. Results taken from this study will be utilized in an Honors thesis project evaluating music and its impact on communication development.</p> <p>2. Description of Study: To collect data, willing speech-language pathologists will answer the following questions about music and its relation to communication development sessions. This survey should take no longer than 10 minutes for participants to complete and should cause minimal disruption to daily activities.</p> <p>3. Benefits: Participants in this thesis will not be given incentives/rewards for participating. The benefits that come from participating in this study include a better understanding of the</p>		

numerous modalities incorporated within the Speech Language Pathology field and deeper self-evaluation about methods currently used.

4. Risks:

There are no anticipated risks involved with participation in this study. Furthermore, there will be no professional reputation risk as this study is confidential and does not gather personal information from participants.

5. Confidentiality:

No identifying details or personal information are obtained from this study. Furthermore, all data collected will be stored in an encrypted, password-protected laptop and deleted upon completion of the thesis.

6. Participant's Assurance:

This project and this consent form have been approved by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, 601-266-5997.

Any questions about this research project should be directed to the Principal Investigator using the contact information provided above.

CONSENT TO PARTICIPATE IN RESEARCH

I understand that participation in this project is completely voluntary, and I may withdraw at any time without penalty, prejudice, or loss of benefits. Unless described above, all personal information will be kept strictly confidential, including my name and other identifying information. All procedures to be followed and their purposes were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected. Any new information that develops during the project will be provided to me if that information may affect my willingness to continue participation in the project.

CONSENT TO PARTICIPATE IN RESEARCH

By clicking the box below, I give my consent to participate in this research project. *If you do not wish to participate in this study, please close your browser now.*

APPENDIX B: IRB APPROVAL LETTER

Office of
Research Integrity

118 COLLEGE DRIVE #5116 • HATTIESBURG, MS | 601.266.6756 | WWW.USM.EDU/ORI



NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI using the Incident form available in InfoEd.
- The period of approval is twelve months. If a project will exceed twelve months, a request should be submitted to ORI using the Renewal form available in InfoEd prior to the expiration date.

PROTOCOL NUMBER: 23-0168
PROJECT TITLE: The Implementation of Music Within Communication Intervention and Its Effect On Communication Development
SCHOOL/PROGRAM: Speech & Hearing Sciences
RESEARCHERS: PI: Rebecca Dunn
Investigators: Dunn, Rebecca~Allen, Ashley Diane~
IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited Category
PERIOD OF APPROVAL: 01-Nov-2023 to 31-Oct-2024

A handwritten signature in black ink that reads "Lisa Wright".

Lisa Wright, Ph.D., MPH
Senior Institutional Review Board Analyst

APPENDIX C: INFORMATIONAL GUIDE

BRIEF RESEARCH SURVEY

IRB Number: 23-0168
5997

IRB Contact: 601-266-

**Seeking Speech Language Pathologists to
participate in an online survey.**



**This survey will address the usage of music
within communication development settings
and its value, or lack of, to therapy methods.**

QUESTIONS:

Rebecca.Dunn@usm.edu or Ashley.Allen@usm.edu

APPENDIX D: SURVEY QUESTIONS

Demographic questions:

A. How many years have you practiced as a Speech-Language Pathologist?

1. 0-5 years
2. 5-10 years
3. 10-20 years
4. 20-30 years
5. 30-40 years
6. 41+ years

B. What age group do you primarily work with?

1. 0-5 year olds
2. 5-15 year olds
3. 15-30 year olds
4. 30+ year olds

C. In what setting do you primarily practice?

1. Private practice
2. Hospitals/Clinics
3. Education/Schools
4. College/Universities
5. Health Care Facilities
6. Other (please specify)

Music in Therapy:

A. Do you implement music within your therapy setting?

1. Yes, always
2. Yes, typically
3. Yes, sometimes
4. Yes, rarely
5. No

B. What is your opinion of using music in speech therapy?

1. Music has value in therapy.
2. Music has no value in therapy.
3. Music distracts from therapy work.
4. Music neither adds to or takes away from therapy sessions.

C. Please select the following benefits of implementing music in communication intervention. Check all that apply.

1. Using music in communication intervention increases motivation.
2. Using music in communication intervention increases participation.
3. Using music in communication intervention increases interaction during therapy sessions.
4. Using music in communication intervention increases progression rate.
5. Using music in communication intervention teaches what others cannot.
6. All of the above.
7. Other (please specify):

D. What clients of communication intervention sessions do you include music with?

1. Clients with Aphasia

2. Clients with Autism
3. Clients with Dementia
4. Clients with Fluency Disorders
5. Clients with Language Disorders
6. Clients with Resonance Disorders
7. Clients with Speech Disorders
8. Clients with TBI
9. Clients with Voice Disorders
10. All of the above.
11. Other (please specify):

E. Is there an age limit for involving music in communication intervention?

1. Yes (please specify):
2. No

Types of Music:

A. How do you incorporate music in intervention sessions? Check all that apply.

- a. The music plays in the background.
- b. You and the client listen to music together.
- c. You and the client sing music together.
- d. You and the client play a musical instrument.
- e. You and the client take turns singing to each other.
- f. All of the above.
- g. Other (please specify):

B. Is there a specific genre of music or type of songs that you incorporate in therapy?

a. Yes (please specify):

b. No

C. Is there a specific genre of music or type of songs that you do NOT incorporate in therapy?

a. Yes (please specify):

b. No

D. Have you ever worked or considered working with a music therapist?

a. Yes

b. No

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