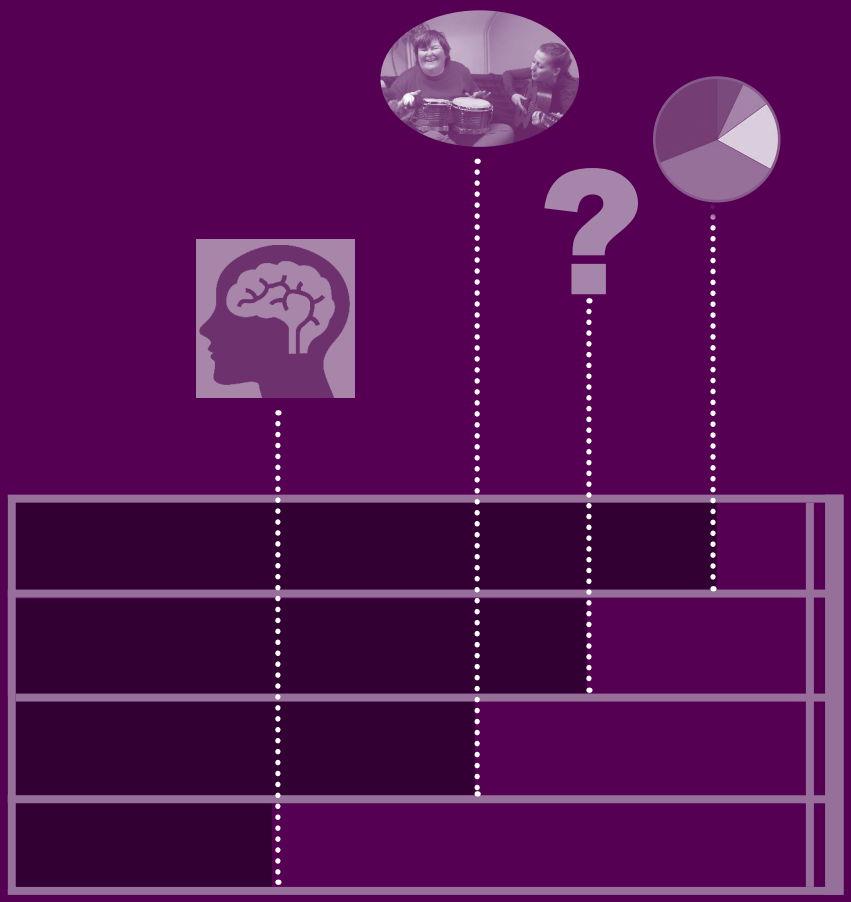
AMERICAN MUSIC THERAPY ASSOCIATION®

Improving Access and Quality: Music Therapy Research 2025

Proceedings



2015

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Related to a strategic priority on research first established in 2010, AMTA organized the symposium, *Improving Access and Quality: Music Therapy Research 2025*, and requested input from AMTA's professional membership. The Advisory Team assisted in identifying topics for the symposium agenda (See Appendix A), engaged colleagues in dialogue related to the symposium, and supported a diversity of research and clinical practices, views, and experiences among delegates attending the symposium. The responsibility for the published symposium summary rests with the proceedings editors. Neither the American Music Therapy Association nor its Board of Directors is responsible for the findings or conclusions reached or opinions expressed in this publication.

The American Music Therapy Association is a non-profit association, first established in 1950, dedicated to increasing access to quality music therapy services for individuals with disabilities or illnesses or for those who are interested in personal growth and wellness. AMTA provides extensive educational and research information about the music therapy profession. Referrals for qualified music therapists are also provided to consumers and parents. AMTA holds an annual conference every autumn and its seven regions hold conferences every spring.

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MTR 2025 Executive Summary and Full Report available @ *www.musictherapy.org* under:
Research > Strategic Priority on Research > MTR 2025

ACKNOWLEDGMENTS & GRATITUDE

The Vision
A generous gift from Tom and Lucy Ott and David's Fund made AMTA's dream of a research symposium a reality—*Music Therapy Research 2025*. Based on the AMTA Strategic Priority on Research, the AMTA Board of Directors brought life to the vision by convening the first-ever research symposium to develop research guidance for the future of music therapy research. AMTA and the entire music therapy community is greatly indebted to the Otts for giving the gift that made MTR 2025 a reality.

The Work: Making MTR a Reality
As with most worthwhile efforts, the MTR 2025 symposium required a "village" to bring it to life. Our village was competently led by Barbara Else, AMTA Senior Policy Advisor, who worked closely with the MTR 2025 Advisory Team consisting of Joke Bradt (active researcher), Deb Burns (AMTA Research Committee Chair), Alicia Clair (AMTA Board of Directors), Linda Demlo (retired federal government research Senior Executive Officer), Andi Farbman (AMTA Executive Director), Tony Meadows (Editor, Music Therapy Perspectives), Sheri Robb (Editor, *Journal of Music Therapy*), Judy Simpson (AMTA Director of Government Relations), and Annette Whitehead-Pleaux (AMTA Assembly Speaker and Board Member). Many thanks to the Advisory Team members whose conceptualization and collaboration greatly contributed to the success of MTR 2025. And special thanks to the AMTA President, Amy Furman, for providing stimulating opening remarks to set the tone for MTR 2025 and to the AMTA Board of Directors for its support.

The Workers: Speakers, Participants & Guests
We approached the MTR 2025 symposium with a creative and ambitious vision that included a diverse and wide ranging group of speakers. Nineteen professionals were commissioned to write papers on key topics outlined by the Advisory Team. The impressive group of speakers included (order and groupings in which they appeared): Pamela Hinds (from Children's National Medical Center in Washington, DC), Sheri Robb and Tony Meadows; Barbara Else, Lori Gooding, and Annette Whitehead-Pleaux; Ken Aigen and Deb Burns; Judy Simpson; Blythe LaGasse and John Carpente; Hanne Mette Ochsner Ridder and Alicia Clair; Wendy Magee and Connie Tomaino; Joke Bradt and Sara Thompson; and Deanna Hanson-Abromeit and Christine Neugebauer. In addition, Advisory Team members facilitated the workgroups that related to each of the topics. We are sincerely grateful to the speakers who crafted papers and summaries for our lively discussions and subsequent recommendations. And to the facilitators, scribes, and presenters for their group work and creating an environment in which discussion flowed productively.

Thanks also to the clinicians, educators, researchers, and students who comprised our participant population: to the seven Regional representatives, and to the more than fifty other participants who were either selected to represent an unrepresented or underrepresented population or who attended because of their own investment in research. A special shout out to two guests from faraway lands—Hanne Ridder traveled from Denmark and Felicity Baker traveled from Australia!

In addition, we invited a handful of "VIP" friends to witness and contribute to our research guidance recommendations. From the federal government, we had representatives from the National Institutes of Health/National Institute of Nursing Research, US Public Health Service

and Walter Reed National Medical Center, and the National Endowment for the Arts; from the non-profit sector/association sector, we had representatives from American for the Arts, the National Association of Music Merchants, and the American Art Therapy Association. Much appreciation to our colleagues who joined us for this significant event and lent invaluable perspectives.

***A Few Final Thank*s**
Thanks to Jennifer Jones, AMTA Continuing Education Co-Chair, who singlehandedly managed the CMTE credit process so that participants could accrue credits.

And finally, special thanks to the AMTA "village people," led by Barbara Else. The AMTA staff worked behind the scenes to make this momentous event a success--doing everything from negotiating the contract with the Maritime Institute to processing the registrations and financial transactions to editing and desktop publishing MTR 2025 materials to many other tasks. We appreciate how comfortable and smoothly the meeting flowed so that everyone could focus on the important recommendations! A BIG THANK YOU!

Andrea H. Farbman
AMTA Executive Director

MTR 2025 Participants at the Closing Session

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EXECUTIVE SUMMARY

The American Music Therapy Association (AMTA) convened an historic and innovative research symposium, "Improving Access and Quality: Music Therapy Research 2025" (MTR 2025), July 16-18, 2015. This visionary symposium was designed to recommend guidance for future research in music therapy and was made possible by a generous donation from David's Fund and Tom and Lucy Ott. MTR 2025 is tied to AMTA's long-standing Strategic Priority on Research. The symposium represents an important event and is part of a larger and ongoing initiative to grow access to and quality of research in music therapy.

MTR 2025 was structured to foster dialogue and to embrace diversity in thinking, approaches to practice, and methodologies. (See Appendix A for the Symposium Agenda.) AMTA was proud to sponsor this unique opportunity to bring the myriad members of the music therapy community together to collaboratively explore our research future. At the opening keynote panel, the Editors of AMTA's peer-reviewed journals, Drs. Robb and Meadows aptly noted:

> *When viewed as a whole, music therapy research has moved through several important stages of development, characterized by differentiation and integration of philosophies and perspectives that parallel changes occurring in the broader national health research community, including an emphasis on diverse methodologies. Central to advancing the science and practice of music therapy is finding ways to develop and integrate this knowledge across these research cultures, while meeting both internal and external demands for research that demonstrates improvements in quality and access to care.*

The Keynote topics and speakers included:

- "Importance of Research for Improving Access and Quality," Pamela Hinds, RN, PhD, FAAN, Associate Center Director, Center for Translational Science, Children's Research Institute; Director, Nursing Research and Quality Outcomes, Children's National™
- "Cultures of Inquiry in Music Therapy and Research and the Changing Landscape of Knowledge Generation and Implementation," Sheri Robb, PhD, MT-BC and Tony Meadows, PhD, MT-BC.

The Symposium agenda benefitted from input garnered through a broad and diverse group of dedicated and enthusiastic individuals including clinicians, educators, students, and researchers. Four panel presentations helped set the tone and provided background context for the participant and small group discussions, and working groups.

Panel One. Music Therapy Research Needs:

In advance of the symposium informal surveys/interviews were conducted with clinicians and educators. A summary of findings was followed by exploration of how the research process grows and evolves in music therapy practice. Panelists highlighted the important questions, potential impact, and interplay of theories, methods, and approaches.

Panel Two. Policy Imperatives:

This panel discussed the impact of research on Music Therapy recognition, access, and funding. AMTA's government relations perspective was represented regarding future music therapy

research as it informs policy imperatives. The presentation summarized input from a variety of colleagues outside of music therapy regarding the role and use of research in policy-making and advocacy at the federal, state, and local levels.

Panel Three. Considerations for Future Research in Selected Clinical Topics:

Autism Spectrum Disorder, Alzheimer's and Related Dementias, and Acquired Brain Injury (ABI) were selected to highlight opportunities for future research. These topics involve large segments of practicing music therapists and have been identified by policy-makers and funders as areas where research findings impact policy and funding. Each topic leader outlined considerations for future research in music therapy, drawing from the literature and knowledge of trends in current music therapy practice. Respondents added commentary and supplemental remarks.

Panel Four. Research Capacity Building:

Infrastructure, Education, and Training: Panelists offered conceptual ideas and factors for consideration regarding research capacity building for two major topics: a) research infrastructure and b) music therapy education and training. In addition to the perspectives of educators, the perspectives of clinicians and intern supervisors were presented because of their importance to the dialogue and to the unique set of challenges and needs of practicing clinician-scholars.

Recommendations by Topic

Six breakout groups convened in which participants discussed topics related to Panels Two, Three, and Four, responded to a set of questions, and generated 42 recommendations.

Policy Imperatives [11 recommendations]

1. Define and describe the intervention using accepted standards of specification in published research and as part of research planning. When planning a research study, the music therapy intervention needs to be identified and specified by intervention and not just by the term "music therapy."
2. Conduct music therapy studies that focus on specific interventions for specific diagnoses/conditions. Numerous past published studies have commingled populations and conditions, especially in group music therapy settings. In order to prepare to ask for Medicare coverage of specific interventions/procedures, future research needs to examine (isolate) the research for one particular intervention for one particular diagnosis.
3. List the ICD-10 diagnosis of the research participants to help link the benefit of a particular intervention to a particular diagnosis.
4. Present a research briefing on Capitol Hill and include a famous spokesperson to headline to attract key legislators and staff to attend.
5. Partner with the health sciences field to conduct research, encourage team science, and secure lines of funding.
6. Recommend the creation and addition of a policy section to *Music Therapy Perspectives*.
7. Commission white papers on all populations for which there is a substantial body of research evidence. White papers could be written by population work groups with teams of clinicians and researchers.

8. Recommend research prioritizing the following clinical areas:
    - Autism Spectrum Disorder
    - Dementia
    - Traumatic Brain Injury and Acquired Brain Injury
9. Create a research document for each population for the purpose of advocacy. This is envisioned as a fairly simple document that is specifically geared toward legislators and policy makers.
10. Partner with researchers and/or economists qualified to support cost effectiveness and economic studies. For example, analyses recommended include the following areas:
    - A study in dementia to examine the potential effect (reduction/change) on use of psychotropic drugs associated with the use of music therapy interventions.
    - A study exploring the potential impact (reduction/change) in institutionalization (e.g., admissions, readmissions, and LOS) related to MT-BCs training caregivers in music-based techniques.
11. Approach private insurers for coverage of NICU interventions.

Clinical Population—Autism Spectrum Disorder [9 recommendations]

1. Focus research in music therapy and autism spectrum disorder (ASD) on the following target domains/areas:
    - Motor/sensory
    - Cognition
    - Mental health
    - Comorbidity
    - Pain perception
    - Musical development
2. Define and provide detail on clinical decision making and service elements in current music therapy practice with persons with ASD. This definition includes research addressing the following questions:
    - What is the role of music in the intervention?
    - What is the role of the clinician?
    - How do music therapists (MTs) set goals?
    - How do MTs determine the rate, frequency, dose, and length of treatment?
3. Define and incorporate consumer experiences and needs in music therapy services with persons with ASD. This recommendation includes research addressing the following questions:
    - What brings consumers to music therapy (MT)?
    - What are the consumers' desired outcomes?
    - What does MT mean for consumers?
4. Conduct comparison studies in music therapy and ASD. This recommendation includes consideration of comparison research studies between outcome domains (inter-domain), among approaches (within MT practice), cost-effectiveness analyses, and between disciplines (outside MT profession).
5. Incorporate family/peer-supported services in MT with persons with ASD. This recommendation includes research regarding the role and impact of MT services mediated by parents, peers, or siblings.

6. Conduct research regarding MT services across the lifespan among persons with ASD. This recommendation includes research in the following areas:
    - Effectiveness of MT for adults
    - Community music-making
    - Accommodations for success in the community.
7. Ensure research includes cultural considerations including investigation of MT as vehicle for social change, acknowledging the culture of clients, and neurodiversity.
8. Move toward standardization of music therapy assessments in MT practice with persons with ASD.
9. Focus research on the following settings:
    - Medical
    - School
    - Home
    - Clinic
    - Community

Clinical Population—Alzheimer's & Dementias/Older Adults & Aging* [5 recommendations]

1. Expand research applications with new publications.
2. Create partnerships and collaborations with Centers on Aging, community agencies, researchers, etc., in order to improve quality of research, evaluation, training, access, etc.
3. Improve research methodology to design decision tree analysis for MT interventions and include data that would contribute to cost effectiveness studies in research, when possible.
4. Disseminate research to improve clinician access to MT and research on related disciplines to a) ensure high quality clinical care and b) establish AMTA as the centralized source of information on state-of-the-art music therapy for persons who are aging.
5. Increase visibility of music therapy research nationally and internationally in established advocacy and policymaking bodies (e.g., Alzheimer's Association NAPA, AARP, Trial Match).

*This workgroup recommended that the scope of the workgroup topic should expand to include older adults and aging populations in addition to persons with Alzheimer's and related dementias.

Clinical Population—Acquired Brain Injury (ABI) & Comorbidity [6 recommendations]

1. Identify and disseminate evidence that MT is effective in treating ABI and co-morbidities.
2. Demonstrate the relative cost-effectiveness of MT interventions in this clinical population.
3. Utilize expert clinical opinion as a form of evidence and to help drive research agendas.
4. Include the voices of patients with ABI in MT research (service-user led research).
5. Generate clinical data sets that can be shared to support lines of MT research in this clinical topic.
6. Incorporate research frameworks to develop lines of research that speak to colleagues in other disciplines.

Building Research Capacity: Research Infrastructure [5 recommendations]

1. Create a portrait of the current music therapy research infrastructure with case studies of best practices, including examples from universities, clinical research faculty positions, and research fellowships.

2. Increase meaningful engagement of clinicians in research, including as Principal Investigators.
3. Increase research-active scholars among persons with doctoral level training to support their regular and active involvement in research programs and to support development of lines of research.
4. Increase postdoctoral opportunities through raising awareness of research career paths and through PhD faculty mentors.
5. Include the voice of the consumers (as partners and collaborators) in music therapy research.

Building Research Capacity: Research Infrastructure – Education, Continuing Education, and Training [6 recommendations]

1. Explore best practices in the education of evidence-based and evidence-informed MT practice.
2. Expand methodologies to include clients' and clinicians' voices in the MT body of research.
3. Develop opportunities for post-doctoral training and education in MT practice and research scholarship.
4. Develop and conduct focus groups to identify continuing education needs unique to each of the following roles: educators, clinicians, internship directors, and researchers (online, regional, state, national).
5. Explore ways to make research relevant to clinical practice, e.g., engage clinicians and researchers in responding to publications.
6. Create mechanisms to disseminate information on available grants, mentorships, fellowships, and post-doctoral opportunities.

(For additional comments, see Appendix C on Commentary from Breakout Groups)

Conclusions

MTR 2025 is an initiative of AMTA geared towards stimulating conversation about building research capacity and growing the production and usage of high quality research in music therapy.

Multiple cross-cutting themes emerged at MTR 2025 symposium. Here is a selection:

- **Consumer Impact**. The critical importance of consumers' voices in music therapy research, planning, and implementation
- **Clinician Involvement**. The essential role of the practicing music therapist in accessing and using published research, and in participating in research as clinician-scholars and as part of team science
- **Diverse Methodologies**. The value of embracing diverse, complex, and integrated research methodologies
- **Theory**. The need to further develop, integrate, describe, and link theory and theoretical models in music therapy research with well articulated and defined music therapy interventions
- **Research Capacity Building**. The need to grow research capacity among music therapists with attention to both research infrastructure as well as education, training, and continuing education

- **Economic Analyses**. The importance of including, where appropriate, cost and economic analyses as part of music therapy research including building research partnerships with individuals skilled in cost analyses and economic research
- **Expanding Partnerships**. The value of expanding and growing collaborations, partnerships, and networks (including interdisciplinary team science) for efficient and productive work in important lines of research

The recommendations developed by symposium participants represent only a fraction of the important dialogue and exchange occurring before, during, and continuing after the symposium. As we rocket towards the year 2025, it is important that each individual consider one's role and contribution in growing and sustaining a legacy of research to inform practice and, ultimately, benefit our clients and their families.

This symposium was just the beginning. Following the July, 2015, symposium, AMTA continues MTR 2025 with an array of discussions, activities, and processes to infuse, embed, and integrate research as a cross-cutting and essential feature of clinical and association functions designed to increase access to and quality of music therapy services.

OVERVIEW and PROCESS

The American Music Therapy Association (AMTA) convened an historic and innovative research symposium, "Improving Access and Quality: Music Therapy Research 2025" (MTR 2025), July 16-18, 2015. This visionary symposium was designed to recommend guidance for future research in music therapy and was made possible by a generous donation from David's Fund and Tom and Lucy Ott. MTR 2025 is tied to AMTA's long-standing Strategic Priority on Research. The symposium represents an important event and is part of a larger and ongoing initiative to grow access to and quality of research in music therapy.

MTR 2025 was structured to foster dialogue and to embrace diversity in thinking, approaches to practice, and methodologies. The Advisory Team convened in 2014 to further define the goals of the symposium and to recommend a structure. The planning for the MTR 2025 Symposium agenda (See Appendix A) benefitted from input garnered through a broad and diverse group of dedicated and enthusiastic individuals including clinicians, educators, students, and researchers. Advisory Team members engaged in a series of informal interviews and conversations, reaching out to music therapy professionals in the U.S. and around the world during the ten months prior to the July 2015 symposium event. The purpose of the dialogue and interviews was to obtain input on future research needs from a diverse sampling of music therapists. Salient themes from these conversations and interviews were highlighted at the MTR 2025 symposium and summarized in this document. Additionally, a dedicated AMTA email address was created and announced allowing anyone to offer input and thoughts on future research. Panel presenters prepared short background papers, contained herein, which were shared with MTR 2025 Symposium participants in advance of the meeting.

Following two opening keynote presentations, four panels involving 16 presentations helped set the tone and provided background context for the participant and small group discussions, and working groups. Symposium attendees participated in breakout groups to discuss topics related to Panels Two, Three and Four, respond to a set of questions, and generate recommendations. Each breakout group appointed a representative to present the group's recommendations, and a second person to offer commentary on their topic and recommendations. (See Appendix C for Breakout Group Commentary.) The symposium closed with a lively period of open discussion and comment.

OPENING KEYNOTES

Overview: Importance of Research for Professional Identity, Quality and Legacy

Pamela S. Hinds
Children's National Health System

The role and function of research is directly tied to one's professional identity, to quality interventions and services, and to a legacy to sustain and support music therapy practice in the future. The unique function of research is as a source of evidence and the challenge lies in keeping research useful. Useful research in music therapy is discussed in the context of methods and interdisciplinary team science leadership. The focus of this keynote presentation was not only on the value and relevance of research to music therapy practice, but also considered the important role of legacy making and research planning for the future of the profession, for policy makers, for leadership and decision makers, and for the clients/patients served. The interdependence of research with practice and policy is highlighted in closing.

Outline of Keynote Presentation

(See Appendix B for Presentation Slides)

The contribution of research to legacy making - the challenge of avoiding or diminishing 'other'

Part I. The Unique Function of Research

- The evidence source that is the promise of a better future
- Trustworthy knowledge to address the chaos of today's health care systems
- Attending to immediate needs is a must but concurrently planning for the future is as well
- Discovering New Knowledge and Making it Trustworthy
- Thoughtful Theory Selection, Assessment and Testing
- Explanation, understanding

Method Selection – guided by purpose and context
- Feasibility
- Truth seeking (no one method equates to finding truth)
- Discovering New Knowledge and Making it Real
- Making the research real to another person or group
- True anecdotes coupled with explanation
- Visiting elected officials regarding nursing and a presence on the NIH campus
- Findings conveyed with meaningfulness – quiet passion and commitment

Part II. 'Research Being Useful': What Does that Mean?

Being a Useful, Research-Based Profession
- What does it mean to be a 'useful' profession?
- What does it mean to be a 'useful, research-based profession?

Being 'Useful' Precedes Being Essential - contributing knowledge is part of becoming essential

Being a Useful Profession Through Research and New Knowledge
- Does 'unique knowledge' justify a profession?
- Potentially yes, but the research question that is asked may differ by discipline or profession

Unique application of knowledge to profession-related situations and circumstances
- Advancing 'Useful Research' to Advance Health:
- Alone? When to Lead? When to Co-lead? When to Team?

Being Useful through Research: Mistake making as a valuable lesson and contribution

Part III. Legacy Making

What is a Legacy?
- A Legacy: A gift to others
- A representation of what is important to the person or group that is declaring the legacy
- An action that has purpose intended to benefit others over time

A Legacy Map
- Career or discipline meaning and purpose
- Depiction of intended direction of career or group efforts

Anatomy of a Legacy Map
- The Declared Legacy
- Current Steps designed to achieve the desired legacy
- Planned sequential steps to achieve the desired legacy
- 'Other'

What Makes Research Findings Useful for the Future? Using Them

Part IV. Using Research to Inform Health Policy: Political Will

Determine policy relevance at the time of developing the research idea
Deliberate process
Identify relevant policy for the research
Identify and engage all stakeholders
Report research findings to inform policy

Research and Political Will
- Does the current political climate possess the political will to change current practices based on the research findings?
- Which institutions or agencies of government or private enterprise demonstrate interest?
- Will the research findings have the capacity to potentially affect a large group of people that are identified as national priority areas?

Policy, Political Will and Legacy

- Communicate the legacy/ goal of your science
- What difference will it make to the health of individuals and families?
- Know the policy context of your science
- What policy can advance your science?
- What policy can challenge your science?
- Inform policy makers for political will to advance science for individuals and families
- Reflect research and policy goals in legacy mapping

Researchers Being 'Useful' Researchers and Citizens

- Changes in health policy require researchers and their associations to be policy leaders.
- Cannot assume the research speaks for itself.
- Interdependence - Policy, Research, & Practice
- "Policy is made by people who see themselves as leaders and take an informed seat at the table." Mary Wooley, President Research America, Foreword to *Shaping Health Policy through Nursing Research*.

OPENING KEYNOTES

Cultures of Inquiry in Music Therapy Research and the Changing Landscape of Knowledge Generation and Implementation

Sheri L. Robb and Anthony Meadows

Abstract

When viewed as a whole, music therapy research has moved through several important stages of development, characterized by differentiation and integration of philosophies and perspectives that parallel changes occurring in the broader national research community. This includes an emphasis on diverse methodologies and a more integrated approach to research. Central to advancing the theory and practice of music therapy, as both an art and a science, is finding ways to develop and integrate knowledge across research cultures, while meeting both internal and external demands for research that demonstrates improvements in quality and access to care.

Introduction: Providing a Context for Change

The music therapy profession has long recognized the importance of research to inform the education and training of music therapists, guide development of interventions, and establish an evidence-base to improve quality of care and increase access to services (Sena Moore, 2015; Solomon, 1993). As with many professions seeking to build their body of research, our human and financial resources are limited, requiring that music therapy researchers identify current strengths and existing gaps in our research, education, and training, while also considering funding priorities from a wide range of private and public agencies. In addition, researchers must also consider the needs of policy makers and consumers—packaging and providing information that allows for compelling and successful advocacy efforts that will expand access to services by credentialed music therapists.

This does not mean music therapists constrain their research to one particular method or population; it is clear that such an approach is not aligned with current methodological advances, nor would such an approach allow researchers to adequately address real-world problems requiring diverse, complex, and integrated methodologies. Instead, the emphasis needs to be on the use of diverse, rigorous, and thoughtful methods that allow music therapists to address complex questions about the therapeutic uses of music—including integrating these different *ways of knowing*.

As such, being intentional in our profession's efforts to grow not only breadth of knowledge but also depth of knowledge is an important consideration as we move forward. Depth of knowledge requires a focused effort to answer a wide range of questions about specific health-related needs, therapeutic processes, and/or settings. It has implications for education and training, and the development of research networks, advanced theory-based practice knowledge, and research methodologies.

An intentional focus will also require generation and meaningful dissemination of music therapy research findings for a variety of audiences, including consumers, advocates, and policy makers. In doing so, it is helpful to consider how music therapy research has moved through several stages of development, characterized by the differentiation and integration of a range of philosophies and perspectives, and how changes in our profession parallel changes occurring in the broader national research community, including the emergence of research process frameworks that may help us communicate and focus our programs of research.

Philosophical and Methodological Pluralism: The Changing Landscape of Knowledge Generation and Implementation

Although there is a clear emphasis on the need for diverse methodologies and a more integrated approach to generating and applying knowledge to improve care, some members of the scientific community are still working to move past some "old ways of thinking" that can be traced back, in part, to the Evidence Based Medicine (EBM) movement that was introduced in 1992, which placed an emphasis on the use of evidence generated from clinical trials to guide practice (Claridge & Fabian, 2005; Wampold & Kuldhir, 2004). Well intended as EBM may have been, criticism about the overreliance on evidence generated from controlled trials without regard for clinical practice knowledge and the need to tailor interventions based on the culture, values, and needs of the individual patient ensued, and in 1996, Sackett and colleagues described evidence-based clinical decision making as a combination of research evidence and clinical expertise, taking into account patient preference (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). In 2009, Satterfield and colleagues published a transdisciplinary model of Evidence Based Practice (EBP) that emphasizes three areas: (a) best available evidence (not just randomized controlled trial [RCT] evidence); (b) needs, values, and preferences of patients; and (c) resources, including clinician expertise. In addition, environment and organizational context must be taken into account, which essentially represents a fourth element (Satterfield et al., 2009). In line with this broadened emphasis, the American Music Therapy Association (AMTA, 2010) adopted a definition of evidence-based music therapy practice that incorporated these four elements.

Unfortunately, the "grading" or "leveling" of evidence, as part of EBP, has perpetuated an overemphasis on the value of RCTs to guide clinical practice, and has often resulted in an undervaluing of research that has generated essential information about the humanistic, cultural, and social aspects of illness and health (Aigen, 2015; Rycroft-Malone et al., 2004; Wampold & Kuldhir, 2004). However, the emergence of documents such as *Collaboration and Team Science: A Field Guide* (Bennett, Gadlin, & Levine-Finley, 2010) and *Best Practices for Mixed Methods Research in the Health Sciences* (Creswell, Klassen, Plan Clark, & Smith, 2011), as well as the growing emphasis on translational science (Reis et al., 2010; Woolf, 2008), indicate a growing awareness and recognition about the complexities of the education and health care problems that we face, and the limitations of evidence generated through controlled trial studies alone.

As shared by Creswell and colleagues (2011), "A priority exists in health science research to develop new methodologies to improve the quality and scientific power of data that is leading to an extraordinary surge in methodological diversity" (p. 2). The authors go on to share that this diversity reflects the nature of the problems that public health faces, and signals growing acceptance of qualitative and social science research, the formation of interdisciplinary research teams, and the use of multi-leveled approaches to investigate complicated health problems.

Other developments in research illustrate the growing demand for diverse methodologies to generate clinically meaningful data that will provide a more holistic understanding of the social, psychological, and biological underpinnings of health care problems and resulting interventions. Examples include the recent emphasis on Translational Research (Reis et al., 2010; Woolf, 2008), Interprofessional Practice and Education (Frenk et al., 2010; Institute of Medicine, 2015; World Health Organization, 2010), as well as Team Science (Bennett et al., 2010) to help bridge the growing chasm between research and practice. Each of these more recent movements in health care research has emphasized the need for a more integrated, team approach to research—working to improve the translation and uptake of interventions.

Research Frameworks: Ways to Communicate About the State of the Science and Develop Comprehensive Programs of Research

Process frameworks are one way of communicating about and focusing a program of research. Although there are many, two commonly referenced frameworks include the Translational Research Spectrum (National Center for Advancing Translational Sciences, 2015; Woolf, 2008) and the Medical Research Council (MRC) Guide, *Developing and Evaluating Complex Interventions* (Craig et al., 2013a, 2013b). Research frameworks illustrate and describe the progression of research including basic and exploratory concepts, theoretical and developmental studies, and evaluative studies examining intervention effects and translation of findings to clinical practice. Older models were criticized for their depiction of research as a linear process; newer models emphasize a more cyclical, interdependent process.

The MRC recently updated its framework to capture the iterative nature of intervention research (Craig et al., 2013a, 2013b). The MRC framework identifies four key elements of intervention development and evaluation, including (a) development (e.g., examining/synthesizing existing research, identification/development of theory, examining/modeling processes and outcomes); (b) feasibility/piloting (e.g., examining intervention content and/or study procedures); (c) evaluation (e.g., assessing effectiveness, understanding change process, assessing cost-effectiveness); and (d) implementation (e.g., clinical decision making, clinical uptake/benefit following translation). Each stage of the process requires a wide range of methodologies to advance basic, theoretical, and clinical practice knowledge, and it is important to remember that researchers do not necessarily conduct research across all phases of development. For example, some researchers have expertise in basic music perception research, but not theory or intervention development. Yet the findings of the basic music perception researcher will likely inform the work of the theorist and/or interventionists, and vice versa. Similarly, we have researchers with a wide range of methodological expertise who will specialize in a particular method, but it is through collective efforts and meaningful integration of findings that we create a depth of knowledge for the profession.

Simultaneously, some members of the music therapy community are working to advance theory(ies) and practice(s) of music therapy from other perspectives, ones that might not readily lend themselves to the notion of music therapy as a science, and may not, therefore, easily align with frameworks such as those outlined by the MRC. Music-centered practices (Aigen, 2014), community music therapy (Stige, Ansdell, Elefant, & Pavlicevic, 2010), and practices centered on understanding music therapy as a health humanity (Crawford, Brown, Baker, Tischler, & Abrams, 2015) provide different lenses through which to understand clinical practice, and often evoke research methods that focus on the arts, musical analysis, and research practices that capture clients' experiences of music therapy using forms of communication that do not readily fit into scientific modes of knowledge delivery.

Our challenge, in the coming decade, appears to involve not just the purposeful consideration and implementation of research frameworks built around diverse methodologies, but also the celebration of music as both an art and a science, recognizing that while these two ways of understanding music therapy do intersect, they are also different, and advancing these differences ensures that we explore the full range of human experiences embodied in music.

Despite problems with frameworks, they do provide a way to think and talk about knowledge generation and synthesis. An important first step in developing a program of research is to identify strengths and existing gaps in knowledge to focus our collective efforts on building a diverse, yet cohesive, body of research. Shared knowledge about frameworks and language being

used by different agencies and stakeholders of research, can help us communicate our research priorities and findings to support advocacy efforts and secure funding. An exciting development in the field of education and health care research is the realization that no one person or approach can meet the critical needs we have in these settings today. It will require an informed and intentional integration of existing knowledge, as well as the dissemination and implementation of a rigorous and diverse body of research, which ultimately has implications for how we educate and train the next generation of music therapy research scholars and clinicians.

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Themes from Informal Interviews

Barbara A. Else

Abstract

Consideration of recommendations for future research in music therapy includes analyzing perceptions of research needs reported by music therapy (MT) professionals. To encourage diversity of current, representative views and perceptions, several communication mechanisms were established in late 2014 in anticipation of the symposium Improving Access and Quality: Music Therapy Research 2025. *As part of the agenda-planning process for this meeting, members of the Advisory Team surveyed and conducted informal interviews with Board Certified Music Therapists located throughout the United States as well as with international music therapy colleagues. Individuals were asked a set of open-ended, semi-structured questions to capture current thinking and perceptions regarding future research needs. Major salient themes were culled from the interviews and summarized.*

Introduction

Recommendations for future research in music therapy may begin by analyzing perceptions of research needs reported by music therapy professionals. In order to encourage a diversity of current, representative views and perceptions, several communication mechanisms were established in late 2014 in anticipation of the symposium *Improving Access and Quality: Music Therapy Research 2025* (MTR 2025). In addition to dialogue and presentations at the 2014 AMTA Annual Conference, a dedicated email address, periodic member and website updates, and direct outreach to music therapists were initiated in early 2015. As part of the agenda-planning process for MTR 2025, members of the Advisory Team surveyed and conducted informal interviews with Board Certified Music Therapists located throughout the United States. Interviewees included working clinicians and intern supervisors as well as individuals affiliated with academic and research centers. Interviews also included conversations with several international music therapy colleagues.

Question Set, Demographics, and Analysis Approach

Individuals were asked a set of open-ended, semi-structured questions to capture current thinking and perceptions regarding future research needs. The notion was to informally hold conversations with music therapy professionals active in music therapy research, practice, and education/training. Figure 1 details the question set.

Figure 1

Interview Questions

1. What do you think the MTR 2025 research agenda for AMTA should include? More specifically:
    a. What are your thoughts regarding the research needs of MT clinicians?
    b. What are your thoughts regarding the research needs to advance knowledge of the profession as a whole?
    c. What are your thoughts and ideas regarding infrastructure to support research?
    d. What are your thoughts and ideas regarding education and training in research?
    e. If you assume a helicopter view and strategic perspective, what is your thinking about areas of research activity to move MT practice forward?
2. What are some of the strengths of the current body of music therapy research?
3. Where are the weaknesses of music therapy research; and/or, conversely, what opportunities do you see as areas of improvement or need?
4. AMTA and its membership have regular opportunities to respond to inquiries and needs from employers, funders, and policy makers who may use MT research in decision making. They are the "external stakeholders" regarding music therapy research. Concomitantly, major public health topics and conditions are targeted periodically for federal initiatives that cross-cut federal agencies. These initiatives sometimes include priority funds for programs and research. The idea is to focus energy and activity to address topics affecting a population. Currently, key topics and initiatives that intersect with a large segment of MT practice include (a) Alzheimer's/dementias, (b) ASD, and (c) TBI or mTBI w/ comorbid conditions such as PTSD and depression. What are some of the gaps in MT research in any or all of these topics (which, again, may imply opportunities for future research)?

Invitations were extended to 50 music therapists via email and/or telephone contact. While the majority of the individuals interviewed hold academic affiliations, many of the academic-based therapists also practice part-time. Fourteen percent of the interviewees were full-time practitioners and this group includes intern supervisors. Overall, the response rate for the interviews was 84%. Sixteen percent of the respondents were international. Sixty-four percent of the respondent sample hold an academic affiliation, 14% of respondents practice music therapy as their main activity, and 6% of the respondents were doctoral students at the time of the interviews. Figure 2 outlines the basic response rates by responder activity.

Figure 2

International	Academic	Practice as Main Focus	Doctoral Student
16%	64%	14%	6%

	Outreach #	Responders	Response Rate
International	9	8	89%
U.S.	41	34	83%
Total	50	42	84%

All responders were assigned a case ID number. Responses were logged in a secure data file and sorted by question item. The outreach interviews yielded a considerable amount of data; therefore, informal, preliminary thematic analysis was conducted (Creswell, 2013). Responses for each question item were pooled in aggregate for initial coding and sorting for thematic analysis using HyperRESEARCH software. The interview questions were mapped to major categories or major themes defined as "research" and "education." Under these major themes, the responses were grouped into subthemes. Within subthemes, responses were further categorized by topics and subjects within various topics. Figure 3 illustrates the mapping and grouping approach. Table 1 summarizes the main organizational themes, subthemes, topics, and subjects.

Figure 3

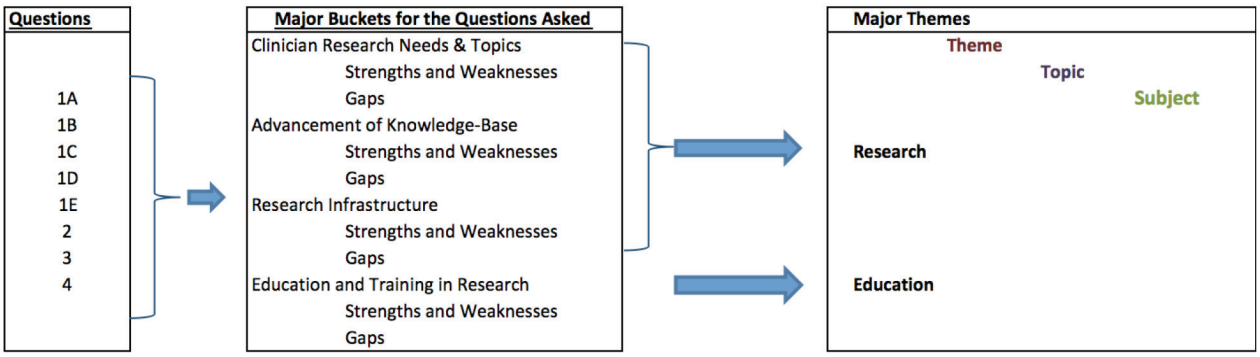

Table 1

Major Theme	*Theme - Topic - Subject*
	Research Theme
Research	• Knowledge Repository
	o Access to research literature
	o Sifting/Filtering research volume/overload
	* Understanding evidence, gaps, opportunities
	* Clinical topics - gaps/opportunities
	o Dissemination
	* Systematic reviews
	• Basic Science and Discovery
	o Descriptive, correlational, qualitative work
	o Explanatory mechanisms
	o Measurement
	o Analytic techniques in MT
	• Early Translation
	o Theory
	* Theory building
	* Bridging theory to research
	o Applied clinical research
	* Intervention development
	* Early phase/preliminary studies
	o Comparative studies
	o Collaboration and partnering
	• Late Translation
	o Replication studies
	o Targeted larger scale trials and mixed methods research
	o Standardizing methods, materials for practice
	• Adoption
	• Health Services Research
	o Research
	* Secondary-data research
	o MT program evaluation
	o Policy and regulation
	* MT economics: cost benefit analysis (CBA) and cost effectiveness analysis (CEA)
	* Policy research
	* Knowledge integration
	o System and workforce capacity
	* MT supply and demand
	Education Theme
Education	• MT Education in Research
	o Undergraduate
	o Graduate/Masters
	o Doctoral
	o Postdoctoral
	* Postdoctoral fellowship opportunities
	• Research Culture
	o Unification and embracing all methods and approaches
	o Research as a collaboration with MTs and investigators
	o Building a culture valuing role of research in MT practice
	• Research Training and Mentoring
	o Internship
	o Mentorship
	o Continuing education

Major Salient Themes and Strategic Interpretation of Findings

Numerous themes emerged from the review and analysis of the interview data. To the extent that numerous individuals raised similar and related points in response to the questions posed, salient themes included, but were not limited to, a dozen commonly shared ideas, listed in Table 2.

Table 2

Salient Themes

Respondents recommended a commitment to:

1. building research capacity;
2. encouraging collaborative research, partnerships, and research networks;
3. understanding research information needs of multiple audiences within and external to the profession;
4. advancing understanding of mechanisms of action, causal pathways, and phenomenological experiences in clinical practice;
5. embracing standards of reporting for music therapy interventions and research protocols;
6. developing and linking theoretical frameworks to practice-based, patient-centered music therapy interventions;
7. advancing scholarship and rigor in measurement, assessment, and complex methodologies;
8. refining and developing a variety of methodologies;
9. including and expanding cost and economic analyses among appropriate, selected topics;
10. understanding the uptake of findings from research;
11. prioritizing research activity efficiently, such as among outcomes and domains that cross clinical conditions and population; and,
12. supporting an expectation of professionals' investment and involvement in research as part of clinical practice and professional development.

The interpretation of the interview data, taken as a whole, can be distilled to a quintet of strategic notions that may be instructive as recommendations for future research are formulated and prioritized. Table 3 lists the five strategic notions emerging in response to the interviews.

Table 3

Strategic Notions

1. Moving forward for quality research practices: Embracing diverse, complex, and integrated methodologies
2. Growing a positive research culture: "MTs need to be passionate about research and commit to an investment in research"
3. Seeking efficiency in research: Prudent research prioritizations informed by the gaps and opportunities for expanding knowledge
4. Growing research collaborations, partnerships, and networks
5. Building research capacity: Infrastructure, education, and training across the professional lifespan

Overall, the respondents commented on the importance of and need to embrace a variety of methodologies appropriate to the research question of interest(s). There was a subtheme related to appropriate use of mixed methods and a subtheme related to the importance of continued work in theory development and theoretical model building. A need highlighted by numerous individuals related to the importance of future research to link theory and theoretical framework/models to well-defined music therapy interventions using established standards of articulating the intervention in the peer-reviewed literature. "When investigators use theory to guide their research design, they are identifying not only outcomes—but also the proposed mechanisms of action" (S. Robb, personal communication, May 5, 2015).

A second strategic notion relates to a desire, especially among working practitioners, to support and grow a positive research culture. In a follow-up conversation with one respondent, who is the owner of a growing private practice, it was noted that "MTs need to be passionate about research and every MT should commit to an investment in research" (J. Schrader, personal communication, March 3, 2015).

As a group of busy professionals, with a very limited number of individuals who engage in MT research as their main focus, it is essential that future research activity be efficient to optimize efforts. Related to this, the respondents spoke often about the value and importance of growing partnerships and focused research networks for lines of research. This is often developed through professional society subsections and inter- and intradisciplinary research networks dedicated to topics of interest (Olff, 2015). One suggestion is to consider attention on domains of functioning and outcomes that intersect with multiple conditions and populations in the hopes that the impact of the research may be much greater (S. de l'Etoile, personal communication, May 4, 2015). Among various lines of research affecting populations in need, many respondents commented on the importance of tracking and understanding the gaps in knowledge and evidence as well as the findings and evidence in the published literature.

Another core strategic notion relates to growing networks, partnerships, and cooperative research planning. The reasons for this are multiple, according to respondents, and relate to strengthening research funding streams, benefiting from research collaborations, and involving a diverse and growing array of individuals in the research process. This notion extends to supporting forums such as research groups or clubs regarding reviewing and consuming emerging research.

Finally, the last core strategic notion involves building research capacity, both in terms of education and training at all levels as well as building research infrastructure. This last area was noted by a majority of educators, with unanimous interest in quality improvements regarding research education at the undergraduate level, into the internship training experience, and beyond.

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➢ Music Therapy Research Needs: Educators' Perspective Salient Themes and Commentary

Lori Gooding

Research is important to the music therapy profession for many reasons: it guides professional practice, fosters critical thinking, and advances the profession. Music therapy research has a long history that incorporates various methodologies and parallels the growth and development of the profession (Brooks, 2003; Ferrer, 2012; Jellison, 1973; Jones, 2006). Educational programs, in particular, have played an important role in music therapy research. As early as 1965, educators advocated for more research and practical education training for music therapy students (Alley, 1978; Groene & Pembrook, 2000). During the 1970s, the focus shifted away from research, with calls for a reduced emphasis on research skills in the music therapy curriculum (Braswell, Decuir, & Maranto, 1980; Ferrer, 2012; Petrie, 1989). By the mid-1990s, research was once again at the forefront with the growth and development of evidence-based practices (Satterfield et al., 2009). As of 2010, AMTA had developed a definition of evidence-based music therapy practice and established a strategic priority on research. This focus on evidence-based practice and research has led to renewed calls by some for "more research in music therapy teaching and learning" (Ferrer, 2012, p. 142). Others have highlighted the need for academic programs to train students on the basics of research, teach them to apply research to clinical practice, help them understand the differences between clinical evaluation and clinical research, and help them develop the ability to critically appraise research (Edwards, 2005).

Current AMTA Standards for Education and Clinical Training (2015) include research requirements at both the undergraduate and graduate levels. At the undergraduate level, the development of professional competence in research is required (AMTA, 2015; Silverman, 2008). Students are exposed to research methodologies through the review of journal articles, case study assignments, and data collection exercises (Ferrer, 2012). Further development of research skills occurs at the graduate level. Students seeking master's degrees are expected to gain in-depth knowledge in research, which is often accomplished through theses and special projects. Doctoral students receive the most training in research and are expected to develope advanced competence (AMTA, 2015; Ferrer, 2012). Though there is limited information on research at the undergraduate level, the music therapy literature supports the strong connection between graduate music therapy education and research. For example, studies have linked graduate training to an advanced competency in research and have identified research as one of the most frequent areas of specialization for graduate programs (Maranto & Bruscia, 1988; Vega & Keith, 2012). Likewise, graduate programs have been significantly associated with the publication and presentation of research (Silverman, Waldon, & Kimura, 2014; Waldon, 2007).

When taken together, the previous information indicates that music therapy education plays a pivotal role in ensuring that future professionals can access, understand, apply, and implement evidence-based practices as well as produce future research, especially at the graduate level. However, not all music therapists have graduate training. Current data from the Certification Board of Music Therapists indicate that 59% of music therapists hold a bachelor's degree (B. Dalsimer, personal communication, June 25, 2015). As such, there is growing recognition that the current structure may not adequately prepare all music therapists for the demands of evidence-based practice and conducting research (Ferrer, 2012). This suggests that it may be time to re-evaluate

our current approach to research education and training, from the undergraduate classroom to the internship and beyond.

The issue of research training in music therapy is as timely today as it was over four decades ago when researchers first began to evaluate its place in the music therapy curriculum (Ferrer, 2012). In fact, educators who responded to informal interviews for the *Improving Access and Quality: Music Therapy Research 2025* symposium were unanimously in favor of improvements in the quality of research education at all levels (Else, 2015). Possible improvements have been suggested that include the creation of continuing music therapy education courses on research for clinicians, increased offerings of undergraduate music therapy research courses, and inclusion of new music therapy research standards and guidelines in higher level courses (Ferrer, 2012). Further support could also be provided through the creation of music therapy research groups in which experienced researchers mentor novice researchers (Else, 2015; Ferrer, 2012). Other avenues may also be helpful, and research is needed to best determine how to improve the quality of research education and training. Ideally, the music therapy profession needs educational strategies that prepare music therapists for both evidence-based practice and future research (Hoskyns, 2013; Jones, 2006).

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➢ Music Therapy Research Needs: Clinicians' Perspective
Salient Themes and Commentary

Annette Whitehead-Pleaux

When I ponder the future agendas of music therapy research, I am struck by the deceptive simplicity of the task and its enormity. There is so much to do now, more than ever before; and even though we have more people working to build our body of knowledge through quality research, we need more people to accomplish our goals. There has never been a better time to bring together researchers, clinicians, educators, and internship directors to discuss our future and research. We are at an exciting crossroads where every road ahead leads us forward. Dialogue in this regard that is encouraged from clinicians should be the norm, a usual aspect of practice, and not the exception.

From the perspective of a clinician and internship director, research is at the heart of my clinical work and the clinical training of future professionals. At the center of all music therapy clinical work is the principle of evidence-based practice. When assessing or re-assessing any client, our practice is a three-fold process: (1) discovering the client's needs and strengths, (2) exploring the research and theories that are applicable to the client's needs, and (3) using our best clinical judgment to design the treatment plan for/with that client. Without one of these three steps, our interventions and work are not the best they can be. Our clients deserve our very best work—work that is informed by research.

The interview data indicated a need for greater understanding and consumption of research by music therapy clinicians. I agree completely. This is a problem that has been identified in related professions as well (Brown, 2015; Magill-Evans & Pain, 2015). The AMTA Standards of Clinical Practice (2015) clearly state that clinicians must "maintain knowledge of current developments in research, theory, and techniques in music therapy." To meet the bare minimum standards to practice music therapy, one must engage in competent research consumption in relation to one's area(s) of practices. A culture of being competent consumers of research and theory needs to grow within our community of music therapy clinicians. This stems, in part, from understanding and embracing evidence-based practice principles.

A cultural shift has begun within the music therapy profession, at both the grassroots and institutional levels. Grassroots efforts have grown from innovative ideas from industry leaders across the United States. One example of this is the virtual journal club hosted by music therapist Janice Lindstrom (Lindstrom, 2015). Another grassroots effort is the explosion of distance learning e-course sites that focus on music therapy clinical applications based in evidence-based practice. An example is Summit Music Therapy Services (www.summitmusictherapy.com). These are grassroots and bridge-building activities by music therapists who identify as clinicians and who are working to bring about a culture change within the profession of music therapy.

Changes that continue to facilitate this cultural shift also are coming from the institutions of music therapy. Within the past two years, the American Music Therapy Association (AMTA) partnered with Oxford University Press to publish the *Journal of Music Therapy* and *Music Therapy Perspectives*. With membership in AMTA, music therapy clinicians now have online access to all archived and current journal articles published in these journals and in past journals supported by the association; thus, a good portion of our research base is accessible to all who are members of AMTA. Another example of institutional support to contribute to clinicians' consumption and

review of research is the Certification Board for Music Therapists (CBMT). CBMT offers up to 20 credits per five-year cycle for reading and writing responses to refereed journal articles (CBMT, 2015). These institutional changes have both increased the availability of research to clinicians and provided incentives to be highly skilled consumers of research.

A third area of change emerged at the grassroots and the institutional levels. As our profession grew and developed, clinicians noted that many conference presentations were designed with the entry-level music therapist clinician in mind. Clinicians who were no longer entry-level asked for and created conference presentations oriented for more advanced practitioners and involving more in-depth study of the research literature. This feedback was heard by music therapists in attendance and active at institutions/facilities, at AMTA and regional functions, and among state music therapy associations. All have encouraged submission of advanced conference presentations focusing on evidence-based practice and research-based treatment. Together, individuals and institutions must continue to work in concert to further scholarship.

While these changes help embrace the culture of evidence-based practice, there is more we can do in our roles as internship directors, practicum supervisors, and educators to facilitate this cultural shift. By teaching and reinforcing the practices of assessment, investigation of the research, and utilization of our best clinical judgment, we can build a stronger culture of evidence-based practice and research consumption. Giving our students and interns even modest opportunities to explore our body of evidence (such as time, space, and resources) while engaging in real-time clinical experiences is a worthy investment in their ongoing training and lifelong learning. Not only will this inform their work in the internship or practicum, but it will contribute to research practices as sustainable aspects of clinicians' practice throughout their career.

The clinician's role is more than being a good consumer of research. As clinicians on the front line of music therapy, we are the ones out there every day working in real-life situations with people who have diverse and complex needs. As each of us goes through our day, we are generating questions about our sessions, intervention plans, the clients' needs, supervision, trends in our profession, policy and legislation, etc. These questions about real-time issues we face each day are echoed in the questions of our colleagues and peers across the country and beyond. We, as music therapy clinicians, follow trends and have awareness regarding the evidence needed in our library. We know what is missing from our research base and the future directions music therapy may take in health, education, and human services. We have insight from the field that is not attainable unless one is working as a full time clinician.

This leads me to other salient themes noted in the informal interview data that apply to music therapy clinicians: "encouraging collaborative research," "understanding research information needs of multiple audiences within and external to the profession," and "supporting an expectation of professionals' investment and involvement in research as part of clinical practice and professional development" (Else, 2015). These important insights by clinicians suggest that collaboration between scholars and clinicians is vital to developing and executing relevant and timely research studies. This collaboration needs to extend beyond implementation of research protocols developed by scholars to true collaborations in which everyone at the table has an equally important voice. Collaborations in research can and need to extend beyond the clinician and scholar relationship. Our profession needs to move toward a greater number of multi-center research studies that capitalize on the expertise and ideas of clinician researchers.

Music therapy clinicians work in concert with colleagues from other disciplines everyday, all day long. Many of us spend a fair amount of our time co-treating with nurses, physical therapists, speech and language pathologists, occupational therapists, child life specialists, social workers,

physicians, psychologists, psychiatrists, and others. We have developed strong relationships with many of these professionals in order to provide quality music therapy services for shared clients. In addition, music therapy clinicians have a direct line to consumers of music therapy and their advocates. In order to perform research that is relevant, of high quality, and has consumer involvement, we need these relationships to obtain permission to perform research and recruit subjects. If music therapy as a profession has identified the need for research to address internal and external audiences, clinicians are the natural connections to these audiences and the various disciplines they represent. The involvement of clinicians, from the beginning stages of research project development through implementation and analysis, helps inform the research team as to what is relevant and possible in the clinical setting. It also helps identify the key players when pre-existing relationships are in place.

Finally, I want to focus on the topic of clinician researchers. A growing number of advanced clinicians who are not affiliated with a college, university, or scholarly institution are engaged in clinical research. We usually conduct field-based research within our respective facilities and places of employment. We publish our studies in a variety of peer-reviewed journals. Often serving as the principal investigator, we collaborate with colleagues and professionals involved in the care of our clients. I believe clinician researchers are a key component to expanding our understanding of music therapy among the spectrum of clinical and practice settings. Clinician researchers facilitate transdisciplinary research collaborations and serve as research ambassadors for the music therapy profession. From our use of evidence-based practice models to our active engagement in the research process, we serve as a bridge between the academic investigator and the clinicians' world.

Yes, we have a lot of work to do to reach the goals we recommended this summer during MTR 2025. The year 2025 will be upon us in no time. We do not want to squander this amazing opportunity before us; but, as we look at all we need to do, we also need to look at the greatest resource, our peers—the music therapy clinicians. As clinicians, we touch upon all aspects of music therapy, from clinical practice, education of future music therapists, policy and legislation, and research. We have so much to offer the music therapy profession and we need to be "at the research table" now and going forward.

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PANEL ONE: Music Therapy Research Needs

Perspectives and Considerations on Theories, Methods, and "So Whats?"

Kenneth Aigen and Debra Burns

Abstract

It might be thought that the term "clinically relevant research" is an unnecessary one because all research in music therapy, by its very nature, should relate in some form to clinical practice. Nonetheless, there is a history—demonstrated anecdotally and through formal investigations—that there has been a difference between what many researchers publish and what clinicians would like to read. However, music therapy clinicians are not the only stakeholders whose perspectives should be considered on what constitutes clinically relevant research. In addition to music therapists, other interested parties include clients, family members of clients, related professionals, health facility administrators, members of regulatory bodies, and potential funders of music therapy in the private and public realms. What counts as clinically relevant might be quite different for the individuals who occupy different perspectives on music therapy. This paper will consider the various types of knowledge claims valued by these different parties, discuss some of the implications for research, and consider the pragmatic considerations that go into the need to adapt different languages and stances according to one's intended audience.

An important role of music therapy research is to provide music therapists support in deciding which music experiences are beneficial to a given patient/client based on his or her needs and preferences. While evidence-based practice (EBP) has been a "gold standard" for guiding best practices, there is a growing understanding of the limitations of EBP, especially given the reliance on meta-analyses of randomized controlled trials (RCTs), or single RCTs when meta-analyses are not feasible. Results from meta-analyses and RCTs are integrated into clinical practice at an extremely slow rate because the requirements for scientific rigor limit generalizability to the larger, more complex patient experience and music therapy clinical practice. Highly relevant music therapy research can be integrated within clinical practice and serve to provide important information to various stakeholders by combining the rich and varied information useful to clinicians, patients, and policy makers. This paper will describe specific examples of research methodologies that highlight the combination of multiple viewpoints.

PANEL ONE

➢ Music Therapy Research Needs: The Identity of Music Therapy and the Uniqueness of Our Dilemma

Kenneth Aigen

Music therapy straddles the domains of the arts and health care. This boundary-crossing aspect of music therapy creates a central dilemma that exists at the core of our professional identity and that underlies many debates in the profession.

Music exists in human cultures because of the inherent gratification it provides. This gratification is what motivates people to devote lifetimes to playing and mastering music, as well as to expending significant material resources to experience it. And yet the standard conception of music therapy as the use of music to achieve nonmusical goals precludes us from being able to

reference this inherent gratification as a rationale for music therapy. The paradox is this: In order to conform to conventional social structures music therapists are pressured to deny to music therapy the very reason that people engage with music in the first place.

However, we cannot completely deny the inherent gratification aspect of music because it really is the only possible rationale for the existence of music therapy as an autonomous discipline. We can only justify the presence of music therapy as a discrete area of professional practice if music therapists provide something not offered by other therapies. And it seems inarguable that what is provided is an experience of music and oneself in music for people who cannot create it on their own. This tension to be both unique enough to warrant an autonomous discipline, and yet sufficiently similar to other therapies in order to be able to survive in the social systems that house therapy, is an unavoidable consequence of the use of an art form for health-related ends.

The conventional view and the intrinsic gratification view each offer something essential while leaving a specific problem: The conventional view of music therapy helps us fit into standard conceptions of therapy, but it leaves us having to justify why music therapy is superior to other treatment options. The intrinsic gratification view provides our reason for being but leaves us to explain how music therapy is different from "just playing music." This perennial tension underlies many of the clinical, training, theory, and research issues that music therapists have been struggling with since the inception of the modern profession.

In the clinical area, we debate the nature of the goals of our work and the function of music in them. Are the goals of music therapy the same as other therapies, such as enhanced immune system response (in the medical area); enhanced social and emotional functioning (in the psychotherapeutic area); enhanced communication, cognitive, or motor functioning (in the rehabilitative area); or the learning of skills and concepts (in the educational area), and is music merely a tool to these nonmusical ends? Or, as some music therapists argue, is the nature of musical experience itself a legitimate goal whose qualities naturally address the concerns for which people come to therapy, and thus is music both a tool and a goal?

In the area of education and training, we identify as a health profession, and yet the predominance of coursework is in music, and most academic music therapy programs are in departments, schools, and colleges of music. If we are truly a health profession, are not courses in anatomy, psychology, and general issues of wellness and public health significantly more important than courses in advanced harmony or the pursuit of orchestration and performance skills on orchestral instruments that will rarely, if ever, be used in clinical work? Why then, do music courses greatly outnumber health-related courses in our academic curricula?

In the area of theory we can see a similar imbalance. For much of its history, music therapy theory has been imported from the four main forces that have influenced psychological treatment: behaviorism, psychoanalysis, humanism, and transpersonal thinking. This has been followed by a strong argument for neuroscience as the basis for music therapy. Contrasting with these trends, in the last 15 years or so, there has been a socio-cultural turn as music therapy theorists have argued for more importance on context in theory. These theories put more emphasis on music as they focus on clients' existing relationships to music and music cultures as important resources to access as part of music therapy. Complementing this contemporary socio-cultural emphasis have been efforts to more directly build music therapy theory on the nature of music and musical experience.

In research, music therapists have endeavored to utilize designs and topics that characterize research on health-related interventions. This research uses quantitative methods that focus on efficacy and effectiveness, and that are based on the construct of music as an intervention that

can be treated as a drug or surgical procedure in a medical framework. Contrasting approaches have tended more toward qualitative methods that focus on clinical processes and the experience of participants. This research considers the music more as a universal human resource that is appropriated by individuals for the beneficial experiences it affords. In this latter approach, music is conceptualized as a cultural resource similar to musical domains—such as in ethnomusicology or the sociology of music—rather than as a medical intervention. Current efforts at utilizing mixed-methods research or developing more responsive readings of evidence-based practice can be understood partly as efforts to bridge this research dichotomy.

In discussing clinically responsive inquiry and the value of practice-based research, it is absolutely essential to consider this paradox and contradiction, although it is not necessarily a problem to be resolved but more of a condition of our professional existence. In addressing professional issues in the four areas noted above, it is helpful to reframe them in light of the defining paradox of our profession, knowing that any ultimate solutions are not possible. The best we can do is to create pragmatic solutions that are responsive to the multiple stakeholders in music therapy, to the various concerns that they have, and to the essential paradox.

Carolyn Kenny (1996) first wrote about the dilemma of uniqueness in music therapy:

> We want to be unique as a field, but not so unique that we become isolated, just enough to give us a raison d'etre [*sic*]. We want our experiences in music therapy to be unique so that we can offer our clients something different from the other fields; in order to do this we must be distinguished from "the others." (p. 89)

If music therapists adopt the goals of other therapies and forego any claims of offering unique experiences and opportunities to clients, we implicitly accept the notion that music therapy should be evaluated on how well it achieves these goals. There is a danger here: If the value of music therapy is determined according to how well we achieve nonmusical social, psychological, motoric, cognitive, communicative, and educational goals, we put ourselves in direct competition with the disciplines that are formulated solely to directly address those goals, such as psychotherapy, speech therapy, occupational therapy, and physical therapy. If, for example, speech therapy is more effective than music therapy at remediating speech problems, there is no rationale for music therapy to adopt such goals. If extended to its logical conclusion, this way of thinking could lead to the demise of the music therapy profession as it would force to music therapists to achieve the difficult task of demonstrating its superiority in functional areas over disciplines formulated to address goals specifically and exclusively in those areas. That is a very dangerous strategy for music therapy to pursue.

This is one reason why music therapists need and want to be unique: It is the only way to ultimately support the continued existence of our profession. The other half of the dilemma posed by Kenny recognizes that music therapists face the requirement to fit into the community—medical, health-promoting, regulatory, educational, funding, and social structures that exist in society. Music therapists interact with an extraordinarily diverse array of individuals and institutions, each with its own interests, languages, concepts, worldviews, and values. The challenge for music therapists is to determine in what ways, in what contexts, and to which individuals we describe what we uniquely offer. What is nonnegotiable is that we must have a concept of our uniqueness and be able to present it in a way that is congruent with the structures we inhabit; what it is essential to negotiate is the way we describe our uniqueness in different contexts in ways that can establish connections with the practices and beliefs that typify all of these various contexts.

In the second edition of his book *Defining Music Therapy,*[1] Kenneth Bruscia (1998) addressed the identity issues that characterize individual music therapists and the profession as a whole. In negotiating the two components—music and therapy—of who we are individually and collectively, Bruscia sums up our situation this way: "It seems as if we are saying: I am this—but not entirely; I am that—but not entirely; and so I want to be and do both—but not entirely" (p. x). The reason Bruscia has found a need to devote three entire books (one original edition with two major revisions:1989, 1998, 2014) to the topic of defining music therapy is because of the fundamental split at the core of our identity, a split that is in some ways unique in the modern academic and health care worlds.

Music therapy theory has developed in three stages, as delineated in Table 1 (from Aigen, 2014, p. 218), clearly influenced by the fundamental paradox.

Table 1

Three Stages of Development in Models of Music Therapy and Associated Theory

Stage	Years	Characteristics
1	1945-1964	Ideas imported from psychology Little or no novel constructs Weak connection between theory and practice No specific educational/training method connected to theory
2	1965-1981	Treatment models developed in practice Original theory developed to support proprietary models of practice Stronger connection between theory and practice Specific training methods developed
3	1982-Present	Beginning of Indigenous Theory Theories that are imported originate primarily from social sciences, arts disciplines, and biological sciences Broad-based general theories relevant to multiple models and generic forms of practice

The first stage was characterized by a weak connection between theory and practice with little to no original conceptualizations. In the second stage, five comprehensive music therapy models were created that persist to this day: analytical music therapy, behavioral music therapy, Benenzon music therapy, guided imagery and music, and Nordoff-Robbins music therapy. There was a much stronger connection between theory and practice in these original models.

The current stage (3) of theory development is characterized by broad frameworks that are quite different from the general models that preceded them. Unlike clinical models that were characterized by specific procedures, techniques, goals, and theories that oriented clinical work, other than neurologic music therapy, the contemporary orientations—listed in Table 2 (from Aigen, 2014, p. 222)—are more accurately characterized as "tendencies of thought . . . [that] offer a mode or experiencing, describing, and explaining the value of existing music therapy practices" (Aigen, 2014, p. 223).

[1] The third edition was published in 2014.

Table 2

Characteristics of Stage Three Orientations

	Reflecting Practice	No Clinical Model	Emphasis on Music	Integrative Focus	Critiques Medical Model	Emphasis on Context
Field of Play	✓	✓	✓	✓	✓	
Bio-Medical MT		✓	✓	✓		
Culture-Centered MT	✓	✓	✓	✓	✓	✓
Aesthetic MT		✓	✓		✓	
Community MT	✓	✓	✓	✓	✓	✓
Complexity-Based MT	✓	✓	✓	✓	✓	
Music-Centered MT	✓	✓	✓	✓	✓	
Analogy-Based MT	✓	✓	✓	✓		
Neurologic MT			✓	✓		
Feminist MT				✓	✓	✓
Dialogical MT	✓	✓	✓	✓	✓	✓
Resource-Oriented MT	✓	✓	✓	✓	✓	✓
Humanities-Oriented MT	✓	✓	✓	✓	✓	✓

The two elements that most typify these orientations are an integrative purpose and an enhanced focus on music. These two areas of commonality are true for approaches as different from each other as neurologic music therapy and Nordoff-Robbins music therapy. In addition, 10 of the 13 frameworks critique the traditional medical model as an inadequate template upon which to conceptualize and research the broad range of music therapy practices. These observations suggest that research in music therapy that can take into account these three considerations will be more strongly connected to clinical practice and thus have relevance for the primary stakeholders in this practice.

I want to make clear that I am not arguing that all research in music therapy should be music-based, strive for an integrative focus, and be based on considerations different from traditional medical thinking. Instead, what I believe is helpful in developing a research agenda and general guidelines is highlighting elements that support connection to a broad base of clinical practice, and then encouraging researchers to use this information to build into their work elements that foster the connection. The balance of this paper will consider these three areas and suggest how they relate to research and theory.

Twelve of the 13 contemporary music therapy orientations claim an integrative focus as they seek to "establish connections among seemingly disparate practices and to provide conceptual support for clinical work in a way that cuts across traditional divisions such as client population, disabling condition, milieu of therapy or intervention" (Aigen, 2014, p. 225). There is almost a unanimous agreement among theorists in music therapy for a need for theory that is broadly based on universal human concerns and interests, rather than on theory that is deficit- or disability-based and only relevant in narrow areas of clinical application.

For example, culture-centered music therapy theory observes that cultural considerations are at play in all applications of music therapy; neurologic and biomedical music therapy discusses how brain science must ultimately provide the only relevant explanatory constructs for music therapy as all applications are processed in the brain; and music-centered music therapy argues that music is the one commonality in all music therapy applications and therefore music-based theory is relevant throughout the discipline. With few exceptions, each of the approaches in Table

2 makes these types of claims relevant to the establishing of general theory. For research to be derived from these theories, then, their integrative function has to provide an overarching concern that informs study rationales, designs, and outcomes. Because these theories were developed to accommodate and explain existing practice, research designs derived from them will naturally have clinical relevance.

Taken as a whole, these contemporary orientations possess a near universal agreement that there should be "a stronger role for music and musical phenomena in music therapy theory" (Aigen, 2014, p. 239). This recommendation is not only central to the orientations that are overtly music-based, but it is also part of the ones based on contrasting foundations, such as neurologic music therapy. While there are different rationales offered for this view, almost all of the approaches support theory "based upon what music is and the way that it is engaged in, experienced, and cognitively and neurologically processed in nonclinical domains as well as in the clinical domain" (p. 239). Thus, there is a trend to consider "the value of music therapy based upon music's naturalistic identity as a nearly universal aspect of human culture and experience, rather than its uniquely clinical dimensions" (p. 239).

There are two aspects of this emphasis on music relevant to research and theory: (a) a need to describe the music used in much greater detail than has traditionally been the case, and (b) an emphasis to conduct research on the music used in music therapy. It is exceedingly rare to see research on music in music therapy, particularly music that is generated and used within sessions. For example, a cursory examination of the *Journal of Music Therapy* from the last five years (2010–mid-2015) reveals only three to four studies of music (depending upon the criteria one uses to make this determination) and none that examine music generated in an actual music therapy session. Thus, it is not an exaggeration to say that the music in music therapy has been almost completely ignored by researchers, even though all of theoretical developments in music therapy support its investigation.

The uniqueness dilemma and the contradiction at the core of the identity of music therapy have also perennially been expressed in relation to the medical model and its associated illness ideology.[2] On one hand, we can see efforts throughout the profession—including the three contemporary frameworks of analogy-based music therapy, biomedical music therapy, and neurologic music therapy—to adopt a medical perspective and formulate music therapy interventions, treatment rationales, and research designs for specific conditions, with specific symptoms and specific interventions of predetermined frequency and dosage, all of which are designed to cure a condition or remediate a problem.

In contrast, the remaining 10 frameworks reject the medical model as a useful template for how music therapy works, particularly when addressing psychological and social goals. Some of these critiques are based on social values that claim that the traditional perspective marginalizes and disempowers people, particularly those with disabilities; other critiques are more conceptual in nature and are built on the argument that human engagement with music is too idiosyncratic and too contextualized within individual and cultural contexts to ever be considered sufficiently uniform to function as a medical intervention. Both types of critiques present strong challenges to embracing the medical model for music therapy. Thus, to be truly responsive to contemporary theory and contemporary social values, research in music therapy should be undertaken with the recognition that designs predicated on the medical model, while used for pragmatic purposes to reach particular audiences, may actually be built upon a faulty premise that runs counter to contemporary social forces and values in health care. This is not to say that such studies should not

[2] See Rolvsjord (2010) and Aigen (2014) for extended discussions on this topic.

be done, but that they should be done in a way that takes these critiques into account, if they want to have stronger relevance to theory and practice.

As noted at the outset of this paper, the fundamental issue in music therapy relates to the referent of the word *music* in its name. Is the music in music therapy a means to nonmusical ends, or is the provision of uniquely musical experiences part or even most of what we do? In other words, is the music just a tool or is it a goal as well?

One advantage of accepting that our goal is to provide opportunities to engage with music for people who cannot do it on their own is that we can identify something that we uniquely provide as music therapists. No other discipline has as its core mission the provision of health-promoting musical experiences; no other discipline could possibly do so because it would, by definition, be practicing music therapy. So if we fully embrace that, for many clients, the core of what music therapy can offer is music and musical experience, we are embracing a strategy that contains within it a rationale for the profession that is not dependent on meeting criteria designed for other disciplines.

Moreover, I can personally observe that 35 years in the profession have demonstrated that music therapy clients "generally want to engage with music because of the value they attribute to the unique experiences it affords, not to gain benefits that could be obtained in other ways" (Aigen, 2015, p. 24). When we conduct research based on the conceptualization of music therapy

> as a medium for the achievement of nonmusical goals, we will be colluding in a strategy that actually prevents music therapists from examining the single most important element in what motivates and activates clients in music therapy: the intrinsic and unique ways that humans experience music, themselves, other people, and they external world while thy are actively or receptively engaged with music. (p. 24)

Research that is oriented toward documenting effectiveness as the degree to which clients are involved in enriching musical experiences will not only be consistent with the contemporary value placed on consumerism and patient-centered perspectives in health care; it also has the advantage of being a more accurate representation of the nature of music therapy process as considered by its primary stakeholders: the clients of music therapy.

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PANEL ONE

➢ Music Therapy Research Needs: Expanding Methods, Deepening Understanding

Debra Burns

An important role of music therapy research is to provide music therapists the decisional support (or evidence) to select which music experiences are beneficial to a given patient/client based on his or her needs and preferences. Because music therapy is a complex profession (Robb, 2012), the information and decisional support clinicians need from research is multifaceted. Not only do music therapists need to understand which music experiences may be beneficial to particular patient populations or issues, they also need to understand which processes within those music experiences are necessary to realize positive therapeutic outcomes.

The multifaceted needs of music therapy clinicians and various roles of music therapy research require the use of multiple perspectives to understand music therapy phenomena as fully as possible. A reliance on one type of data, limited designs and analyses, and reliance on one single theoretical framework limits our understanding of how patients experience music within therapeutic contexts, how music therapists interact with patients musically, and the influence music experiences have on their lives. Unfortunately, like many other health and education professionals, music therapists have operated within a dualistic view of knowledge that has limited our ability (or willingness) to practice research in a way that would broaden our understanding and ultimately provide highly relevant information leading to high-quality care.

High-quality care refers to the intervention delivery that brings about the best results (efficacious), is patient-preferred, makes sense within a patient's context, is safe, and is worth the cost (Sidani & Braden, 2011). Music therapy has a long history of testing interventions to determine efficacy using research methods and strategies designed to minimize noise in the data and create a clear picture of therapeutic change. However, the tradition of stringent criteria used to assure scientific rigor also reduces the ability of the clinician to translate findings into practice. The reasons for this are multiple; and, methods used to test efficacy typically provide little to no information about the contextual elements and therapeutic processes (i.e., theoretical frameworks) needed to realize targeted goals.

Increased acceptance of mixed methods research (or mixing qualitative and quantitative methods and/or data) to address the multifaceted information needs in education and health has spurred questions about the reliance on efficacy trials to improve the quality of care (Kessler & Glasgow, 2011). Historically, the evidence valued in evidence-based practice (EBP) has focused on information or facts resulting from randomized controlled trials (RCTs) (Melnyk & Fineout-Overholt, 2011). However, results from RCTs are integrated into clinical practice at an extremely slow rate because the requirements for scientific rigor limit generalizability to the larger, more complex patient experience and multifaceted music therapy clinical practice.

Mixed methods research has the potential to fill the translation gap that can occur with RCTs and clinical trials. The mixing of data, methods, analysis, and interpretation creates robust and rich information that is useful for clinicians and other stakeholders. Authors advocating for mixed methods research identify the need for researchers to rethink the role of seemingly divergent philosophical and research paradigms. Reconceptualization and deeper understanding about the role of paradigms guiding research has led to the death of the "paradigm wars" (Bryman, 2006) and increased the broad acceptance of mixed methods research. Furthermore, the dominant paradigms have expanded from postpositivist/constructivist to include pragmatism, transformative-

emancipation, dialectics, and critical realism as useful perspectives (Shannon-Baker, 2015).

Reconceptualization of paradigms within the philosophy of science has created an environment that is more accepting and even encouraging of mixed methods research. (Biesta, 2010; Morgan, 2007). Morgan (2007) describes four basic versions of paradigms and the relationship to research (evidently Kuhn used the word paradigm 20 different ways). Historically in music therapy, paradigm is thought of as a worldview or epistemological stance, which provides a broad approach to knowing but has little direct connection to research. The other two versions of paradigms include a "shared belief in a research field" and a "model example" (Morgan, 2007). These two versions involve the nature of research questions and answers and exemplars of typical solutions to research questions and problems. Another distinguishing feature is that they (shared beliefs and model examples) are directly observable in published literature (unlike worldviews or epistemological stances, which, unless explicitly labeled, can only be inferred). This is one reason Biesta (2010) criticizes terms such as *paradigms*, as well as *positivism* and *qualitative and quantitative research*, because they are not precise enough to have any real meaning.

The increased use of mixed method designs also opens the possibility to ask questions indigenous to music therapy and explore the commonalities to seemingly incompatible ideas. Theoretical frameworks from multiple perspectives (both indigenous and external to music therapy) provide clinicians and researchers clues to new innovative research questions and ways to carry out music therapy interventions with their specific populations. Inquiries focused on theory and processes also provide clinicians guidance in ways to adapt or extend interventions to best fit patient needs and talk with external stakeholders about the uniqueness and benefits of music therapy. Music therapists are in an unusual position in that they have been integrated into clinical practice without the same level of research evidence as other professions. This makes it possible to research the practice of music therapists from their perspectives, addressing referral systems, assessment, therapeutic goals, interventions, and decision-making processes.

Music therapy researchers must be open to multiple perspectives and research methodologies in order to gather information relevant to clinicians, patients, and other stakeholders. Exploring factors associated with intervention implementation, such as intervention characteristics, patient contexts, intervention delivery, and external contexts, assists multiple stakeholders in understanding the process and outcomes associated with music therapy (Damschroder et al., 2009).

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PANEL TWO: Policy Imperatives

The Impact of Research on Music Therapy Recognition, Access, and Funding

Judy Simpson

Abstract

The phrase "research to practice" encompasses more than the application of relevant findings to practice settings. "Research to practice" also includes the use of research to influence public policy, professional recognition, service access, and reimbursement. This paper will highlight standards of research evidence and quality requested by federal, state, and local policy makers when determining services included within education and health care settings. Challenges that currently exist must be acknowledged when politics interfere and legislative and agency stakeholders use "research" as a reason to restrict access to music therapy.

The phrase "research to practice" encompasses more than the application of relevant findings to practice settings. "Research to practice" also includes the use of research to influence public policy, professional recognition, service access, and reimbursement. The various stakeholders representing these areas of influence approach research from different perspectives. To effectively impact music therapy practice in all arenas, it is imperative that we understand the standards of research evidence and quality requested by federal, state, and local policymakers, administrators, and third-party payers.

A tension exists between upholding the integrity, rigor, and autonomy of the research process on one hand, and responding to the needs of varied stakeholders on the other hand. We must also acknowledge and respond to challenges that arise when politics and budgets interfere and decision makers unfairly use a limitation of the "research," e.g., sample size or replicability, as a reason to limit regulatory inclusion and restrict access to music therapy.

The American Music Therapy Association (AMTA) is just one of thousands of national groups that educate legislators and advocate for issues of importance to their profession and members. Congressional briefings on Capitol Hill sponsored by professional associations and non-profit health, education, and arts organizations frequently reference evidence in support of a particular treatment or program—evidence designed to justify policy change and funding, and increase access to select services.

Federal and state agencies often facilitate webinars and conferences focused on expanding research that has the potential to inform practice and policy. Many of these educational and advocacy events focus on the same key objectives:

1. Identify research-based knowledge that can be useful and relevant for policy and practice.
2. Identify gaps in research and evaluation needed to better inform policy and practice.
3. Identify strategies to improve collaboration between researchers and policymakers. (Interagency Committee on Disability Research, 2015, p. 11)

Exploring the best ways to influence a wide spectrum of policy decisions is definitely not unique to health care and education. It is also not unique to the United States, as the literature reveals a strong international interest in this topic. Addressing the impact of research on development

policy and practice, Dr. Roger W. Harris, from the global initiative *Research to Action*, highlights important themes that the music therapy community should heed as it strives to increase the acceptance of research by stakeholders (Harris, 2013). Although some of these concepts may seem obvious, they are too often overlooked or taken for granted when, in fact, they need to be in the forefront of research plans.

It is important for us to recognize that "researchers and policy-makers operate with different values, languages, time-frames, reward systems and professional ties" (Harris, 2013). We must be aware of how these differences affect the research process early on. Ultimately, we must communicate with stakeholders throughout the process in order to have the greatest impact on policy, practice, access, and reimbursement. There is a "need for closer relationships between researchers and research users, requiring co-creation of content and greater involvement in the promotion of results" (Harris, 2013).

The recommendation for early and ongoing collaboration between key stakeholders and researchers is echoed in a primer titled, *Eight Strategies for Research to Practice* (Canoutas, Hart, & Zan, 2012). Canoutas and colleagues state that involvement of decision makers as studies are designed and implemented can improve the usefulness of study results. The involvement of stakeholders throughout the research process reminds us of the tension between autonomy in the research process and meeting the needs of stakeholders referenced in the beginning of this paper. Though the involvement of stakeholders seems fairly obvious, there is not much evidence that the music therapy community has engaged policy makers in the research process as a matter of practice.

AMTA has a strong history of generating research and disseminating evidence to support music therapy practice. As a group of professionals, we are always looking for ways to improve public consumption of this evidence. Instead of waiting until studies are complete, we need to create a communications plan while we are designing the studies in order to have a greater impact. Using suggestions from MEASURE Evaluation's document, *Making Research Findings Actionable* (MEASURE Evaluation, UNC Carolina Population Center, 2009), we are reminded of the importance of looking outside the profession to seek input prior to beginning research studies. Identifying the communications objectives for key target audiences allows us to include research questions that will focus on those unmet needs. Considering current challenges for the profession, these audiences include federal and state legislators and agency staff, education and health care administrators, consumers, and third-party payers. We have to consider the best way to communicate with each group and how each group will use the information as studies are being developed, while being mindful of not compromising the integrity or autonomy of studies.

Speaking the Language of Functional Outcomes and Cost-Effectiveness

One might assume that the need to successfully identify functional outcomes achieved through music therapy interventions and provide evidence of cost-effectiveness of those interventions is limited to justifying reimbursement from public and private insurance sources. These issues, however, are pervasive in all policy discussions, including ones that seek regulatory recognition of the profession and the Board Certified Music Therapist (MT-BC) credential. Working toward the inclusion of music therapy as a valid and accepted treatment option within health care and education settings requires attention to multiple factors important to policy makers.

The National Center for Biotechnology Information of the National Institutes of Health, National Library of Medicine references a helpful summary of cost-effectiveness analysis in *Priorities in Health* (Jamison et al., 2006):

> To determine the best allocation of public funds, policy makers need information about relative costs to determine what combination of interventions can yield the greatest improvements in health. Cost-effectiveness analysis is the tool for weighing different costs and health outcomes when policy makers have to make resource allocation decisions. It does this by giving policy makers the "price" of achieving health improvements through different kinds of interventions, and thereby helps them make decisions that get the most out of their financial resources. (p. 56)

Legislators and government agencies frequently request supporting evidence of treatment benefits and cost-effectiveness of music therapy for a particular patient group or type of health care facility. Although these officials may not fully understand the science and theory behind the interventions, they do respond positively when functional outcomes are clearly defined and cost-savings realized by a constituent or facility is explained in dollars and cents. The profession cannot ignore the increased demand for this cost and economic evaluation information. AMTA must provide leadership to encourage relevant studies and requisite funding for research that helps clinicians successfully justify music therapy services with powerful and valid studies and impressive case examples.

Case Examples and Lessons Learned: Long-Lasting Consequences

AMTA government relations activity often involves responding to service access challenges encountered by consumers and professionals alike. Despite more than 65 years of Association history and numerous achievements along the way, advocacy for increased access is a continuous process, reflected in our mission. Unfortunately, just because government agencies might clarify and state that music therapy is an allowable health care or education service, that does not always translate into successful implementation of services within individual programs and facilities.

Initiatives that operationalize the Association's strategic plan have raised awareness of the strong relationship among state recognition, reimbursement, and research. In fact, these "Three Rs" have been the center of Association strategic priorities for the past 15 years. Each of these topics impacts the other in significant ways. Unfortunately, however, sometimes these strategic priorities are used in arguments against the profession.

The six case examples presented here provide a glimpse into how research has been used (or misused) by various stakeholders to determine whether music therapy is a valid and, therefore, reimbursable service. These cases illustrate real-life examples of what decision makers are seeking when determining service inclusion in policy, programs, and payment.

1. New York State Autism Report – Early Intervention (1999): *Rejection of Music Therapy*

Clinical practice guidelines for autism/pervasive developmental disorders in young children ages 0–3 were developed in 1999 by an independent panel convened by the New York Department of Health under the direction of the Early Intervention Program (Kanthor et al., 2005). This New York Early Intervention Coordinating Council published documents outlining recommendations for the diagnosis and treatment of young children with autism. This report supported the use of Applied Behavioral Analysis (ABA) and specifically rejected other approaches, such as sensory or auditory integration, **music therapy**, and facilitated communication. Investigation into reasons for this disregard for music therapy benefits revealed rejection of music therapy research for its lack of "adequate evidence about efficacy." It is important to note, however, that this report appeared to use a methodology that was limited or at least not aligned with the development of evidence-based

guideline development methodology promoted by governmental agencies such as the Agency for Healthcare Policy and Research (AHCPR) and currently named AHRQ. This limitation did not stop its findings from being recognized in 1999 and today.

AMTA initiated multiple advocacy projects in response to this report, including:

1. Participation in related workshops sponsored by the Department of Education and the National Academy of Sciences
2. Submission of formal statement to the Department regarding the effectiveness of music therapy strategies for children with autism
3. Communication with workshop coordinators and Department officials to seek input on how to increase access to music therapy in early intervention
4. Development of the Autism Task Force, which led to the creation of supportive fact sheets and annotated bibliographies
5. Creation of Association strategic priority on ASD

Sixteen years later, this report has continued to have a negative impact on access to music therapy services, presenting complications in early intervention and special education programs across the country. Administrators from many states have been quick to reference these New York guidelines as the rationale for not approving music therapy as a related service on students' Individual Education Plans (IEPs). Even though this report is now considered dated, it continues to be referenced in more recently published national reports on effective autism treatments.

2. American Medical Association (AMA): Current Procedural Coding (CPT) Application (2006) – *Clarification that Music Therapists Can Use CPT Codes*

In 2006, AMTA completed an application requesting that CPT® codes be created for music therapy procedures for submission to the AMA. Our application requested new codes in two sections of the *Current Procedural Terminology, Fourth Edition*. Service codes were requested for individual music therapy and group music therapy in the psychiatry section of CPT, and music therapy evaluation codes were requested in the physical medicine and rehabilitation section of CPT.

Applications are required to justify the need for any new or modified procedure code, and the review process is contingent upon the provision of robust evidence-based peer-reviewed scientific publications, exclusively from U.S. peer-reviewed journals; please note that the application specifies that international journals are not considered in this process. The AMA's CPT Editorial Panel manages the application review process. Our application was placed on the Editorial Panel's meeting agenda in June 2006, and Dr. Jayne Standley, Barbara Else, and I attended the panel's meeting to support our application and to respond to questions.

When our code request was presented on the agenda, the Editorial Panel's comments specifically acknowledged and validated music therapy as a profession that is able to utilize CPT codes for reporting procedures. Observation of the panel's procedures revealed that the process of new code approval requires additional advocacy steps not outlined in the formal application. We learned that pre-meeting "lobbying" with members of the AMA CPT Advisory Committee (approximately 96 physicians) is essential to increasing support for code requests. The AMA CPT Advisory Committee functions like a quasi-governmental body in its decision-making authority. As we learned more about the unwritten approval process, we were not surprised when we received notification that our request for new codes did not receive approval.

Feedback from the CPT Editorial Panel Executive Committee highlighted two areas in need of further support:

1. There was "inadequate differentiation of the work of the music therapist from existing therapeutic procedures." The profession acknowledges that the music therapist skill set has some elements common to other therapeutic disciplines; and it has many truly unique elements.

2. The references need to show "efficacy" and align directly with vignettes describing music therapy services. It has to be obvious that the documented research supports the vignettes and makes sense with the coding request and how it is different from existing codes. While some of AMTA's references accomplished this, the mental health procedure code requests were not adequate in terms of efficacy and alignment.

3. National Standards Project – ASD (2009, 2015) – "*Unestablished," "Emerging"*

The National Standards Project initiative of the National Autism Center published its first report in 2009 to address the need for evidence-based practice guidelines for autism spectrum disorder (ASD) (National Autism Center, 2009). As one of the first nationally publicized reports that promoted a goal of providing information about interventions that were shown to be effective for individuals diagnosed with ASD, this document was quickly accepted by state agencies and school districts as the ultimate guide for selecting and funding treatment options for individuals diagnosed with ASD.

Using a four-stage classification system, which included *established*, *emerging*, *unestablished*, and *ineffective/harmful*, the 2009 report classified music therapy as an "emerging treatment." *Emerging* was defined as a treatment that produces beneficial effects for persons with ASD, and additional high-quality studies are required to demonstrate reliable and robust results. Even though the "emerging" classification was better than being labeled as" unestablished" or "ineffective," it did not take long for music therapy clients and families to feel the negative impact of this report. Programs across the country serving individuals diagnosed with ASD began to restrict access and cut funding to services that did not receive the "established" classification.

To assist members' understanding of this report and respond to access challenges that followed, AMTA Senior Research Advisor, Barbara Else, prepared an AMTA FAQ document regarding the National Autism Report. One key point from the report was that music therapy was referred to as one large single treatment as opposed to the term "*music therapy*" being used to encompass a profession that includes many protocols and interventions based upon numerous widely accepted theoretical frameworks. Music therapy interventions that the report examined addressed both skill acquisition and behavioral change and were based on a variety of approaches. Misuse of the term "*music therapy*" and categorizing it as a one-dimensional intervention similar to pet, equine, or aquatic therapy demonstrates stakeholders' underlying misunderstanding of the profession. By categorizing music therapy as being only one general intervention, the report did not accurately reflect the variety of music therapy treatment strategies actually examined in the studies under review. It is disturbing to note that no other comparable profession or therapy, such as physical therapy, occupational therapy, or speech therapy, was examined in the same generic and simplistic manner as music therapy, and none of those therapies was negatively impacted by the report.

The second phase of the National Standards Project reviewed studies published between 2007 and 2012 and updated the summary of the ASD intervention literature for children and youth under age 22. The phase two report was just published this year (National Autism Center, 2015) and also reviewed intervention outcome studies for individuals ages 22 years and older, beginning with studies in 1987.

Although music therapy is still listed as an "emerging" intervention for individuals under age 22, there is one important change noted under the list of interventions that was identified as falling into the "established" level of evidence for individuals under age 22:

> Language Training (Production) makes use of various strategies to elicit verbal communication from individuals with ASD. Language Training (Production) begins with appropriate assessment and identification of developmentally appropriate targets. Individualized programs often include strategies such as:
> • Modeling verbalizations for the individual with ASD to imitate
> • Various prompting procedures including verbal, visual, gestural prompts
> • Cue-Pause-Point
> • ***Using music as part of language training***
> • Reinforcement for display of targeted verbal response (p. 49)

Interestingly, there were only six total interventions studied and listed for individuals ages 22 and older. Behavioral interventions were classified as "established"; Vocational Training Package was classified as "emerging"; and Cognitive Behavioral Intervention Package, Modeling, Music Therapy, and Sensory Integration Package" were classified as "unestablished."

The results from the National Standards Project are reflected in other reports in which they are referenced in the decision-making process. In the *Autism Spectrum Disorders (ASDs) Services Final Report on Environmental Scan* prepared for the Centers for Medicare and Medicaid Services (CMS) by the public policy research firm IMPAQ International, music therapy was listed as an "emerging" intervention for children and as an "unestablished" intervention for transitioning youth and adults (Young, Corea, Kimani, & Mandell, 2010). The description of music therapy in the report was simply, "Interventions that teach individual skills or goals through music" (p. 18). As states begin to develop their own autism treatment and funding guidelines, many are using these national reports as a baseline. This has led to an increased demand for clinicians to provide additional evidence supporting the use of music therapy before providing any services to individuals diagnosed with ASD.

4. Wisconsin Medicaid Waiver – *Importance of State Advocacy & State Advocates*

Medicaid waivers are programs developed by each state that focus on specific client groups or diagnoses and provide additional services that are not covered by other funding sources. There are currently a few states that allow payment for music therapy services through use of Medicaid Home and Community-Based Care Waivers with certain client groups. For many years, music therapy has been included as a covered service within the Wisconsin Brain Injury Waiver (BIW) and the Children's Long-Term Support Waiver.

Every five years, each state must submit Waiver applications to the Centers for Medicare and Medicaid services, requiring periodic review of approved Waiver services and provider qualifications. During this review process, states sometimes appoint advisory groups to consider which Waiver services should continue to be offered to state residents. In 2012, when a Wisconsin Treatment Intervention Advisory Committee (TIAC) reviewed Waiver services, it classified music therapy as "experimental" and not eligible for Medicaid Waiver funding, despite the fact that the state of Wisconsin had been funding music therapy services for many years.

Criteria for this classification are clearly outlined within the Wisconsin Department of Health Services state regulations, DHS 107.035 *Definition and identification of experimental*

services (Wisconsin State Legislature, 2014). These criteria are similar to what other public and private third-party payers reference when considering coverage of services for diagnostic groups and treatment programs.

In its August 17, 2012, communication to the Wisconsin Department of Health Services, the TIAC explained the rationale for its decision to classify music therapy as "experimental."

> We found that a lack of empirical studies (versus case reports), identification of specific participant characteristics, treatment integrity and interrater reliability data, experimental control, and rater bias make it difficult to establish Music Therapy's effectiveness. Furthermore, the literature on Music Therapy as a treatment for children and adolescents with ASD offers varying definitions and intervention protocols….This inconsistency in intervention procedures across studies poses challenges when evaluating the entire literature. (TIAC, letter of communication, August 17, 2012)

An extensive advocacy campaign was conducted throughout 2013 with legislators, DHS, and the governor by state music therapists, led by AMTA member, Nancy Dexter-Schabow. Additional support from administrators, other health care professionals, consumers, and their families, helped to persuade DHS to temporarily reinstate music therapy services, providing an opportunity for the music therapy community, with support from AMTA, to present additional research to the TIAC. When the TIAC reviewed the literature again in 2013, it determined that music therapy research met the criteria for "Level 3–Emerging Evidence." This determination reversed the previous year's decision and allowed the Secretary of DHS to make the final decision on whether funding for music therapy would continue through the Children's Long-Term Support Waiver.

5. Music Therapy as a Related Service in Special Education (June 2010) – *Continuing Advocacy Required*

Despite written clarification from the U.S. Department of Education posted on its website about music therapy being an allowable related service under the Individuals with Disabilities Education Act (IDEA), school administrators continue to deny access to school-aged children and young adults who could benefit from music therapy services. District leaders at various levels often argue that "there is no evidence to support the use of music therapy in special education." Success in obtaining music therapy assessments and possible inclusion as a related service on a students' Individual Education Plans (IEP) often depends upon the advocacy skills and determination of the students' parents. Since school districts are not allowed to deny related service access due to budget concerns, they often reference the "lack of research" as a way to avoid further discussion or consideration of music therapy. Widely promoted studies, such as the National Autism Report and state autism guidelines, have added strength to school administrators' stances that music therapy does not meet evidence-based requirements necessary for special education.

6. Medicare National Coverage Determination *(Ongoing)*

It would not be an exaggeration to estimate that the AMTA national office receives questions weekly about Medicare coverage of music therapy. Despite the inclusion of music therapy as part of the treatment milieu within select Medicare Prospective Payment Systems (PPS), it is not possible to bill Medicare directly for music therapy services. AMTA has explored the requirements for a service to be considered for coverage, but has not pursued this option with the Centers for Medicare and Medicaid Services (CMS). A successful application demands more than just

supplying evidence of music therapy benefits. The profession must be adequately prepared to meet specific guidelines before initiating the request for coverage.

The following link to the Federal Register provides an overview of the Medicare National Coverage Determination (NCD) process: http://www.cms.gov/Medicare/Coverage/DeterminationProcess/Downloads/FR08072013.pdf CMS recommends that entities seeking to pursue Medicare NCD have detailed justification for each intervention or protocol for each diagnostic category. For example, AMTA could not request coverage of "music therapy" for all beneficiaries in outpatient rehabilitation. A possible request, for example, could be for coverage of "Rhythmic Auditory Stimulation" for beneficiaries diagnosed with Parkinson's disease or CVA with hemiparesis. Instead of seeking coverage for music therapy in skilled nursing facilities, a coverage request could be for "music-assisted relaxation" for beneficiaries diagnosed with dementia. Acknowledging the level of evidence required by CMS highlights the need to clearly define music therapy interventions and protocols and then match each one with the relevant research. It would be detrimental to initiate the Medicare NCD process without preparing a sound and thorough submission.

Communicating Research: Importance of Presentation and Packaging for Different Audiences

Music therapy advocacy on the federal, state, and local levels has taught us the importance of "presentation" and "packaging" of research for different audiences. The increased use of technology by stakeholders has also influenced the way we share evidence and support materials. Implementation of the AMTA and Certification Board for Music Therapists (CBMT) State Recognition Operational Plan has challenged us to be responsive to information needs and preferences of individual states, legislators, and agencies. There really is a time and a place for everything: annotated bibliographies; articles, abstracts, one-pagers, bullet points, clinical stories, meta analyses, case studies, etc. The key is in knowing what each audience wants or needs to assist it in making informed policy decisions about the provision of music therapy services.

Communication Advice from a State Legislator

One of music therapy's strongest legislative champions is Senator Moises (Mo) Denis from Nevada. Having sponsored Nevada's music therapy licensure bill in 2011, Senator Denis continues to advocate for music therapy services and supports state recognition work by talking with legislators from other states as they consider similar legislation (Sen. M. Denis, personal communication, May 25, 2015). His recommendations about discussing research with legislators include:

- Provide a concise one-page overview and perfect a "30-second" presentation
- Present data published outside the profession that confirms existing music therapy research
- Network with partners in related fields to conduct studies that examine the effectiveness of music therapy
- Share stories of **how** music therapy works and then support these stories with data as to **why** music therapy works.

In reviewing recommendations from professional organizations, national advocacy companies, lobbyists, advisors, and even international sources regarding communicating research to influence policy, all validate the procedures AMTA is utilizing, especially in its state recognition work with CBMT. The AMTA Reimbursement Committee is also contributing to the task of presenting and packaging music therapy evidence for targeted audiences, as the members create

one-page research overview documents for key client diagnoses and populations. This type of information is essential when communicating with third-party payers and helps to consolidate the evidence supporting the use of music therapy interventions for specific treatment issues.

Successful research communication campaigns focus on identifying and meeting the level of expertise and areas of interest of each audience. In a toolkit on *How to Communicate Research for Policy Influence*, Weyrauch and D'Agostino (2012) describe policy briefs as short documents that "summarize a large amount of complex detail"; "a kind of report designed to facilitate the use of research or evidence in the public policy process...so the reader can easily understand the heart of the issue" (p. 1). Providing a concise overview of the most relevant findings, the policy brief should use simple language, be well-organized and visually appealing, and be professional but not academic.

Overview of Research Link to Policy Strategies from Comparable Professional Associations

Representing music therapy in a variety of Washington, DC-based national coalitions provides AMTA the opportunity to collaborate with comparable health, education, and arts professional associations. Joint efforts to impact national policy over the years have included literature reviews, creation of public information documents, and Capitol Hill presentations highlighting research from each organization. Interviews with representatives from these related organizations were conducted to improve understanding of how other professions utilize research to impact policy.

Dr. Eric Rossen, Director of Professional Development and Standards from the National Association of School Psychologists (NASP), indicated that his association "strives to regularly utilize data to inform policy," maintaining "a balance of providing member services while not over-burdening members with data collection requests." Committees assist in determining data needed and NASP publishes independent research, which is conducted through "academic peer review" and utilizes "traditional standards of scientific inquiry." Dr. Rossen stated, "These standards apply to all areas of methodology and ability to generalize findings for the entire population." In effectively communicating research results, Dr. Rossen has found that decision makers often assume citations presented have met publication standards and that one of the roles of professional associations is to identify "relevant data and translate them in a way that is salient for decision makers" (E. Rossen, personal communication, May 21, 2015).

As consultant and lobbyist for the School Social Work Association of America (SWWAA), Myrna Mandlawitz of MRM Associates, LLC, stated that SWWAA always cites supporting studies from the field when developing policy position statements and generating recommendations for legislators. She highlighted, however, that challenges can occur in the use of research to impact policy and fiscal decisions. For example, sometimes stakeholders are "selective" about which data are chosen to support policy decisions. In addition, there appear to be inconsistencies in how decision makers define terms and definitions, e.g., "scientifically valid research," "evidence-based," and "scientifically based." Ms. Mandlawitz acknowledges that researchers work to meet their standards of quality, but that those standards do not always match with what policy makers look for or understand (M. Mandlawitz, personal communication, May 29, 2015).

Communication with other representatives from several health and education organizations validates information from Ms. Mandlawitz regarding the framing of research for decision makers. With attention to presenting information in laymen's terms, we must be able to explain what the effects will be when the research is translated to practice. Although lengthy reports with statistical analyses are appropriate to have available for staff who seek more detail, it is critical that the research community learn the language of policy makers and provide data relevant to the policy audience.

Policy to Sustainable Practice: Why a Music Therapist?

Developing an understanding of where policy fits into the research discussion and its importance is oftentimes avoided in our desire to focus on personal areas of interest and expertise within the profession. Researchers and clinicians even admit that they would rather someone else deal with the policy details. They are not always able to see the critical connections among research, policy, and practice. Accepting that we all contribute to the profession in unique ways, we do, however, need to raise awareness of how important all of these factors are to the future of music therapy. If research leads to improved practice, and research can influence policy, recognition, access, and reimbursement, then we must recognize that policy ultimately impacts sustainable practice. In other words, if we don't generate the research, we won't be included in policy, and the practice of music therapy will not be sustained. It's that simple.

As AMTA and CBMT celebrate 10 years of state recognition advocacy in 2015, we are observing common themes and common questions from a variety of stakeholders across the country. In seeking state recognition of the profession and its credential, decision makers want to know WHY.

- Why do clients need a Board Certified Music Therapist instead of a musician?
- Why do facilities need Board Certified Music Therapists when they can purchase personal iPods for residents?
- Why should our facility pay for music therapy services when we can have community volunteers come and play for patients?
- What is the difference between what a music therapist does and what other providers do when they use music in treatment?
- Why can't we just use the early intervention teachers and special educators, music educators, speech-language-pathologists, occupational therapists using Auditory Integration Therapy and Metronome Therapy, Therapeutic Musicians, and/or Artists in Healthcare?
- What does having a music therapist add to the music experience?
- What harm can be done if a non-music therapist provides "music therapy"?

Responding to these questions takes an army of articulate advocates. And we have a long way to go in successfully answering these very pointed questions. Language we have developed and presented in response to some of these questions includes the following:

> A music therapist's qualifications are unique due to the requirements to be a professionally trained musician in addition to training and clinical experience in practical applications of biology, anatomy, psychology, and the social and behavioral sciences. Music therapists actively create, apply, and manipulate various music elements through live, improvised, adapted, individualized, or recorded music to address physical, emotional, cognitive, and social needs of individuals of all ages. Music therapists structure the use of both instrumental and vocal music strategies to facilitate change. In contrast, when OTs, audiologists, SLPs, counselors, or psychologists report using music as a part of treatment, it involves specific, isolated techniques within a pre-determined protocol, using one pre-arranged aspect of music to address specific and limited issues. This differs from music therapists' unique abilities to provide interventions that utilize all music elements in real-time to address issues across multiple developmental domains concurrently (AMTA and CBMT joint unpublished letter of communication, August 7, 2012).

Why a music therapist? The answer is in the research. For the future of the profession to grow and prosper, and to achieve recognition, increase access, obtain consistent reimbursement, influence key stakeholders, and impact state and federal policy, we need a robust and varied portfolio of research. We need the research so that people who need music therapy services can receive music therapy.

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PANEL THREE: Considerations for Future Research in Selected Clinical Topics

Autism Spectrum Disorder

Blythe LaGasse

Abstract

Autism spectrum disorder (ASD) is a neurodevelopmental disorder affecting 1 in 68 children. Due to the rising number of individuals diagnosed with ASD, there is a need to research the efficacy and effectiveness of treatment interventions. Individuals on the autism spectrum often have difficulties with communication and social interaction, and exhibit restricted interests and repetitive behaviors. An increasing number of studies indicate that music and music therapy can address individual core needs. The results of the 2014 Cochrane review (Geretsegger, Elefant, Mossler, & Gold, 2014) on music therapy for ASD indicated that music therapy is demonstrated to be helpful in promoting social interaction, verbal communication, initiating behavior, and social-emotional reciprocity in children on the autism spectrum. However, the authors indicated that more research using larger samples and generalized outcome measures is needed.

The 2015 National Autism Center's National Standards Project *report lists music therapy as an "emerging practice" in need of high-quality research. Recommendations for future research include continued study of music therapy for core needs in children on the autism spectrum, including study of music engagement, specific music therapy protocols, treatment dosing, and generalizability of skills. Music therapy researchers should examine the impact of music therapy interventions for adolescents and adults on the autism spectrum, especially individuals who have aged out of school-based support services. Researchers are encouraged to use multiple types of evidence and methodologies that can best address research questions, with emphasis on demonstrating the impact of music therapy while attempting to better understand music engagement for individuals on the spectrum. Furthermore, clinician-based research employing appropriate designs, including single system design, should be emphasized in order to better determine protocols appropriate for larger study. Collaborative and multi-site studies of successful protocols should be conducted to determine effectiveness of such protocols. Music therapy clinicians should be trained to integrate knowledge gained from research studies into their clinical practice in order to achieve optimal results.*

Autism spectrum disorder (ASD) is a neurodevelopmental disorder affecting 1 in 68 children (Centers for Disease Control [CDC], 2015). Due to the rising number of individuals diagnosed with ASD, there is a need to research the efficacy and effectiveness of treatment interventions. The current *DSM-5* criteria for ASD includes two core symptoms: (a) persistent deficits in social communication and social interaction, and (b) restricted, repetitive patterns of behaviors, interests, or activities (American Psychiatric Association, 2013). Theories regarding the cause and underlying differences in ASD are numerous and highly debated (i.e., theory of mind, executive dysfunction hypothesis, neurological differences), as are the variety of approaches and models of treatment for individuals with ASD. Music therapy is one treatment modality that has been gaining research support.

An increasing number of studies indicate that music therapy clinical interventions can facilitate improvements in skills, including joint attention (Kalas, 2012; Kim, Wigram, & Gold, 2008; LaGasse, 2014; Vaiouli, 2014), social skills (Kern, Wolery, & Aldridge, 2007; Thompson, McFerran, & Gold, 2014), peer interactions (Kern & Aldridge, 2006), and emotional understanding

or engagement (Katagiri, 2009; Kim, Wigram, & Gold, 2009). The 2014 Cochrane review on music therapy for ASD identified 10 studies that were randomized controlled trials or controlled clinical trials (Geretsegger, Elefant, Mossler, & Gold, 2014). Results indicated that music therapy is demonstrated to be helpful in promoting social interaction, verbal communication, initiating behavior, and social-emotional reciprocity in children on the autism spectrum. The authors indicated that more research using larger samples and generalized outcome measures is needed.

Music therapy is listed in the 2015 National Autism Center's *National Standards Project* report Phase 2 (NSP2) as an "emerging practice" in need of high-quality research. Seven articles on music therapy for individuals on the autism spectrum met the inclusion criteria (which included single system design research) and were published prior to 2012. This is an increase of only one article from the 2009 NSP report. The NSP2 report also looked at research on adults with ASD, and for this population music therapy is listed as an "unestablished intervention," highlighting the greater need for music therapy research with adults on the spectrum. According to the NSP2,

> Music therapy is often sought by parents and provided by numerous agencies and school districts for children with ASD. … Again, if parents and professionals are allocating resources to Emerging Interventions such as music therapy, additional controlled evaluations are necessary to determine intervention effectiveness. (p. 87)

The rationale for targeting music therapy in this statement was not provided, but the view provided in this report is clear. One disadvantage of reports such as the NSP2 report and the Cochrane review is the exclusion of studies that fail to meet inclusion criteria or studies not identified in the search databases utilized. For example, 31 studies were excluded from the 2014 Cochrane review because they were not randomized controlled or controlled clinical trials. Due to the limitations of these reports, music therapy clinicians are encouraged to look at the broader scope of music therapy literature while being aware of what references such as the Cochrane review and the NSP2 report convey about the efficacy of music therapy.

The music therapy literature represents a variety of music therapy approaches. Music therapy has also been combined with theoretical frameworks from other fields, including Applied Behavioral Analysis Verbal Behavioral Approach (Lim & Draper, 2011), DIR/Floortime (Carpente, 2009), and Social Stories (Brownell, 2002; Fees, Kaff, Holmberg, Teagarden, & Delreal, 2014). Therefore, current research, though primarily focused on social and communicative needs, represents a diverse music therapy community. This is perhaps one of the greatest challenges in music therapy research for individuals on the autism spectrum, as there are several approaches utilized in music therapy treatment combined with a limited number of individuals conducting active research.

Recommendations for future research include continued study of music therapy for core needs in children on the autism spectrum, including study of music engagement, specific music therapy protocols, treatment dosing, and generalizability of skills. According to Kern, Rivera, Chandler, & Humpal (2013), music therapy clinicians commonly address social skills, communication skills, emotional skills, academic skills, and motor skills in children with ASD. Of these goal areas, there is limited research focused on academic, emotional, and motor skills. Although small subject, pilot, or case studies address areas including attention (Pasiali, LaGasse, & Penn, 2014) and motor functioning (LaGasse & Hardy, 2013), these goals areas have yet to be systematically investigated in larger studies with adequate power needed for inferential statistics. As these areas are addressed in music therapy treatment, research on the efficacy of treatment is warranted. Research focused on the second *DSM-5* core deficit of restricted, repetitive patterns of behaviors, interests, or activities

has not been established in music therapy literature; however, these needs may be secondarily addressed in studies focused on other goal areas since these behaviors may be directly impacted by skill acquisition.

Music therapy researchers should examine the impact of music therapy interventions for adolescents and adults on the autism spectrum, especially individuals who have aged-out of school-based support services. The NSP2 identified only Behavioral Intervention as an "established" intervention for adults (22+ years) with ASD. The study of music and music therapy for adults could include treatment interventions for core needs, music-based social groups, music making as a leisure/community activity, or other music therapy for mental health needs of adults on the spectrum.

The extant research primarily includes case design, single system design and quantitative methodology. The use of these methodologies should be continued in initial inquiry and to demonstrate treatment efficacy and effectiveness. Researchers should consider the outcome measures utilized, finding objective, systematic, or physiological measures of change as opposed to relying on objective parent/clinician rating scales. Authors of the 2014 Cochrane review provided many suggestions for future research including the use of pragmatic trials (inclusive of flexible interventions and standard care comparisons), parallel trials, and comparisons between music therapy and non-music therapy intervention, as well as comparative trials between different types of music therapy (Geretsegger et al., 2014). Further, music therapy researchers are encouraged to clearly explain the underlying theory (musical or non-musical) and inclusion of non-musical supports or practices in order to better identify why and how the music therapy research intervention did or did not work.

Increasing the number of individuals conducting music therapy and autism research will help to build a better research base for the profession. Clinicians who are interested in research should receive research training in order to conduct appropriate and feasible studies for their clinical setting. Single system designs should be considered within the clinical setting and clinicians are urged to use appropriate analysis methods for these designs. Clinician-researcher collaborations should be fostered, especially to investigate initial efficacy of treatment protocols that may be developed into larger quantitative investigations. Successful protocols should then be testing using multi-site clinical studies.

Researchers are encouraged to use multiple types of evidence and methodologies that can best address research questions. For example, mixed methods studies should be considered in order to better understand the experience of engaging in music, how and why music therapy clinical interventions are working, and the caregiver and/or individual perspective. Qualitative inquiry can also be used to better understand the creative aspects of music therapy treatment and music engagement for individuals on the spectrum. Although there are a few mixed methods and qualitative studies in music therapy and ASD, research using these methodologies could be greatly developed in order to increase our understanding of music therapy interventions, perceptions of individuals with ASD, or family/community dynamics as they relate to music therapy clinical intervention.

Another aspect of music therapy treatment for ASD that has not been investigated is dosing of music therapy interventions. Music therapy research should investigate whether high frequency or low frequency sessions are needed to achieve intended outcomes, the overall duration of treatment needed, and the how long benefits are retained.

While engaging in the investigation of music and music therapy for individuals on the autism spectrum, the viewpoints and perspectives of individuals on the spectrum should be considered and

consulted. It is important to recognize that a model of correction or treatments aimed at achieving normalcy may be offensive to autistic self-advocates. Rather, emphasizing a model of increased self- advocacy and agency should be considered within music therapy research.

Finally, music therapy clinicians must have access to information about and be trained in interventions that have demonstrated efficacy. This should include access to current research on music therapy and ASD, access to high-quality, low-cost trainings (online and face-to-face), access to clinical supervision with advanced practitioners, and the opportunity to network with other practitioners (in music therapy and outside of music therapy) using evidence-based practices with individuals on the autism spectrum.

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PANEL THREE

➢ Considerations for Future Research in Selected Clinical Topics: Recent Progress and Future Directions for Music Therapy Among Children with Autism Spectrum Disorder

John Carpente

Comprehensive analyses of treatments for children with Autism Spectrum Disorder (ASD), such as the National Autism Center's *National Standards Project Phase 2* report (2015), have concluded that the evidence base for music therapy is not sufficient to be considered an "established" treatment. Clearly, there is a need for studies with large enough samples to determine the effectiveness and optimal dosage of music therapy for improving the core needs of children with ASD. Valid and reliable treatment protocols and instruments for assessing social communication skills are vital tools for demonstrating the effectiveness of music therapy. At the same time, we need to be aware of recent developments in music therapy research that address many of these issues.

Specifically, a rigorously designed randomized control trial with 300 children with ASD aged 4 years to 6 years 11 months is being conducted at nine sites to assess the effectiveness and optimal dosage of improvisational music therapy for improving social communication skills in children with ASD. The study, "Randomized Controlled Trial of Improvisational Music Therapy's Effectiveness for Children with Autism Spectrum Disorder" (TIME-A) (Geretsegger, Holck, & Gold, 2012) measures the generalized effects of music therapy before and at 2, 5, and 12 months after randomization using validated outcome measures. When completed, TIME-A will be the largest randomized control trial of any non-pharmaceutical approach to ASD.

The sample size and use of widely recognized assessment instruments make it possible to use TIME-A data to address other issues that challenge the credibility of music therapy, such as the development of a valid instrument for assessing social communication skills within a music therapy context. As a model for expanding the number of individuals conducting music therapy research, the network of TIME-A collaborators has already produced music therapy guidelines, which can be applied using diverse theoretical models of music therapy (Geretsegger et al., 2015).

The diversity of treatment approaches used does pose a challenge not only to the profession of music therapy but also to the entire ASD research community. The relative effectiveness of behavioral and developmental approaches continues to be debated among researchers and clinicians in all fields of practice that treat children with ASD (Ingersoll, 2010). Despite differences in underlying philosophies, in practice, therapists from behavioral and developmental perspectives often incorporate intervention techniques from the other approach to improve child responsiveness (Ingersoll, 2010). Collaborations between and among treatment providers using different approaches would be useful in searching for the important features or "active ingredients" of an intervention that influence its effectiveness. For example, important features may include sequencing of intervention strategies, intensity of treatment, therapist or parent-mediated, or skills targeted such as joint attention, symbolic play (Kasari, 2002).

Research points to the inadequacy of one single treatment approach for all children with ASD (National Autism Center, 2009; Schreibman, 2000; Schreibman et al., 2015). Combinations of interventions using both behavioral and developmental approaches are typically used to tailor treatments to the needs of specific children (Stahmer et al., 2010). Currently, researchers and clinicians use their judgement to decide which strategies, and combination of strategies, would be most effective for a specific child. However, very little is known about how to combine

intervention strategies to benefit children with various challenges (Schreibman, 2000; Sherer & Schreibman, 2005). Interventionists with different theoretical perspectives could bring their specialized expertise to develop a systematic method for combining strategies. This may involve using multiple interventions but varying the proportion of time spent using each, using different interventions depending on the skill area targeted, or varying the sequence in which the intervention strategies are implemented. Collaboration can also explore the relationship between pre-treatment characteristics such as verbal vs. nonverbal, response to intervention, and outcomes to inform which children benefit most from which intervention strategy. As developmental approaches are integrated into behavioral interventions, this research is becoming more important (Dawson et al., 2010).

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PANEL THREE: Considerations for Future Research in Selected Clinical Topics

Alzheimer's Disease and Dementia

Hanne Mette Ochsner Ridder

Abstract

In 2015, the World Health Organization announced a focus on dementia with the aims of increasing awareness of the public health challenges associated with dementia and highlighting the need for coordinated global action. Dementia is one of the major causes of disability and dependency among older people around the world. Alzheimer's disease and related dementias affect neurocognition and associated functioning, including memory, thinking, behavior, and activities of daily living. Agitation in later stages of dementia is the most significant symptom contributing to patient distress and caregiver burden. In order to reduce agitation, it is important to focus on the cause and not merely the symptoms. In spite of this, agitation is frequently treated with psychotropic medications with commonly associated severe adverse effects. A growing number of studies lend evidence indicating that music therapy interventions decrease agitation. According to the latest Cochrane review (Vink, Bruinsma, & Scholten, 2011), however, studies examined as part of the 2011 systematic review were methodologically weak, resulting in authors not being able to draw conclusions regarding the effectiveness of music therapy.

This paper suggests recommendations for future research focusing on the most burning issue regarding dementia – agitation – and studies that include outcome measures on agitation.

The Cochrane review from 2011 includes 10 studies from 1993–2008 and is currently integrating new studies for an updated analysis. Other review articles with broad inclusion of non-pharmacological interventions report positive effects of music activities or music therapy on agitation. Among these studies is the health technology assessment by Livingston and colleagues (2014) with the analysis based on 160 included studies. This review concluded that structured music therapy interventions reduce agitation in care home residents and that future interventions should change care home culture through staff training. Further studies and reviews on music therapy in dementia care report positive effects on agitation. As an example the study by Ridder, Stige, Qvale, and Gold (2013) used an exploratory crossover RCT and integrated the idea of music therapy as a complex intervention as well as a theoretical psychosocial model in the study design.

We recommend that future research focus on the most burning issue regarding dementia: agitation. Although there are several studies showing positive effects of music therapy on agitation in people with moderate/severe dementia, there is a need to consolidate these results before music therapy will be recommended in national health guidelines. Music therapy is mentioned in health guidelines in, for example, the UK and Sweden, but is not yet recommended as a professional health care service to treat agitation in dementia, leaving treatment with psychotropic medication as the only recommended option.

In research studies, it is important not to focus entirely on agitation and to assume that the absence of agitation is consistent with increase in well-being and quality of life; therefore, future music therapy research should also include resource-oriented long-term outcome measures that consider the impact of music therapy interventions on quality of life (QoL), well-being, social engagement, and activities of daily living (ADL). There is also a need to understand and specify best practice, for example, in relation to frequency and length of sessions, the combination of specific music therapy techniques (e.g., singing, dance/movement, improvisation on instruments, or music

listening), and how participant characteristics (e.g., stage of dementia, diagnosis, music preferences or identity) correlate with therapy outcomes.

There is a need for research that holds relevance for music therapy practice with validated clinical manuals or treatment guides based on clinical reality and real-world treatment context. Future studies should specifically value high internal validity, although this may have consequences on the requirements of RCTs and by following the gold standard of research on all points. The first music therapy assessment tools for dementia were published by Lipe, York, & Jensen (2007). Together with the integration of health technology, future research projects have the prospect of assuring precision and reliability in innovative ways. This may help bring clinically relevant research forward and bypass the restrictions of controlled studies without compromising scientific rigor.

Research in related fields informs music therapists about the effect of music on various health issues as well as on learning, memory, identity, stress threshold, and self-regulation. It is recommended that music therapists be trained to a standard where they are able to integrate knowledge from various music therapy approaches as well as from other fields. Skill building and research capacity building is important to prepare music therapists to work collaboratively, in an interdisciplinary context, and through a bio-psycho-social approach. Globally we face an aging population, and an increasing body of research points at music experiences (e.g., singing in choir or playing an instrument) as showing health preventive effects. Engagement with music may influence neuroplasticity, preserve cognitive function, decrease morbidity, delay the onset of dementia, decrease mortality rates (e.g., by leading to reduction in psychotropic medication), and alleviate caregiver burden. Such effects are not simply cause and effect, but need a theoretical, well-founded body of knowledge. An overarching theoretical framework is found for example, in the person-centered approach to care and in a bio-psycho-social model of care.

Finally, international collaborative networks of music therapists specializing in dementia will increase clinicians' knowledge of best practice, theory, assessment, and research. Increased specialization will further inform researchers and assure practice-based research protocols. The overall recommendations for research in this area are to focus on explicit scientific and societal perspectives (such as the consequences of agitation), theoretically well-founded explorations, and continuous collaboration between clinicians and researchers and collaborative networks reflecting a complex intervention.

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PANEL THREE

➢ Considerations for Future Research in Selected Clinical Topics: Alzheimer's Disease and Dementia
Additional Commentary

Alicia Ann Clair

The North American Alzheimer's Association has projected that many of the baby boomer generation in the United States will spend their retirement years either with Alzheimer's disease or caring for someone who has it; and, while deaths from heart disease, cancer, and stroke are declining, Alzheimer's disease has become one of the top 10 causes of death in the United States (Alzheimer's Association, 2011). Still, Alzheimer's disease is only one type of dementia that affects individuals, caregivers, and families. The World Health Organization (WHO, 2012) defines dementia as a syndrome that is not typically part of aging and is usually of a chronic or progressive nature, caused by a variety of brain illnesses that affect memory, thinking, behavior, and the ability to perform everyday activities (p. 2). The World Health Organization estimates the current number of people around the world with dementia is 45.7 million with an economic impact of $604 billion per year. Further, WHO projections for the incidence of dementia are 75.6 million by 2030 and 137 million by 2050 (p. 2). Dementia is an enormous threat to the stability of family systems and to the life quality of persons diagnosed with it and their caregivers. With nothing to stop it or slow it down, dementia is a global threat and a worldwide public health challenge (WHO, 2012, p. 4). Still, dementia is not well understood, and as families face growing dysfunction in their loved ones, they also face stigmas, barriers to care, emotional abandonment and distress, social isolation, loss of community roles and identity, depression, threats to personal health and well-being, and financial disaster.

Dementia presents in various types, each of which is characterized by particular markers; yet the principal feature of all dementia is the loss of cognitive function that is always accompanied by neuropsychiatric symptoms. Such symptoms are inversely correlated with cognitive losses where the symptoms increase as cognitive function declines (Finkel, Costa e Silva, Cohen, Miller, & Sartorius, 1996). Fifty percent of those diagnosed with dementia have at least four symptoms simultaneously (Frisoni et al., 1999), even in the early stages of the disease (Monastero, Mangialasche, Camarda, Ercolani, & Camarda, 2009). Consequently, neuropsychiatric disturbances are a core feature of dementia and impede clinical outcomes (Meeks, Ropacki, & Jeste, 2006), and interventions that manage behavioral and psychological symptoms in dementia care are important to life quality (Katona et al., 2007).

When family caregivers can no longer mange neuropsychiatric disturbances with loved ones in their homes, the perceived burden of care becomes so extreme that they seek alternatives. Consequently, perception of care burden is the strongest determinant for placement in residential facilities and aberrant behaviors strongly influence this perception (Chan, Kasper, Black, & Rabins, 2003). Family caregivers are especially affected by their care receivers' agitation, aggression, irritability and emotional lability, regardless of how frequent or severe the symptoms (Matsumoto et al., 2007). Yet, the most difficult symptoms with the greatest burden are delusions and disruptive behaviors that include aggression and screaming (Huang, Lee, Liao, Wang, & Lai, 2012; Miyamoto, Tachimori, & Ito, 2010; Rocca et al., 2010). Burden is further determined by the caregiver's perspectives concerning life quality in the home, personal characteristics, and the quality of the relationship between the caregiver and the care receiver (Campbell et al., 2008).

Pharmacological interventions for disturbing behaviors are typically not effective and often cause harm, including augmented dysfunction, falls that result in multiple injuries, toxicity, pharmacological restraint that is against the law, along with other damaging consequences. Associated misuses of drugs frequently lead to long-term hospitalizations and high costs for care, especially when nursing home admission is deemed necessary as a result (Cerejeira, Lagarto, & Mukaetova-Ladinska, 2012). Therefore, there is great need to develop non-pharmacological approaches to manage behavior and psychological symptoms within the scope of dementia care.

In consideration of the complex requirements for care, the World Health Organization (2012) has identified several principal goals, including:

- Early diagnosis
- Optimized physical health, cognition, activity and well-being
- Detection and treatment of behavioral and psychological symptoms
- Education and long-term support for caregivers (p. 12).

Literature reviews pervasively demonstrate the need for more and better research to study the efficacy of meeting these goals. Further, recommendations from the Alzheimer's Disease Research Summit held at the National Institutes for Health in February 2015 call for changes in how academic, biopharmaceutical, and government sectors engage in research, knowledge development, and sharing to facilitate new and better therapies, to fill knowledge gaps and draw upon new technologies to hasten treatments for people at all stages of the disease, and to eventually end the disease (National Institutes for Health, 2015, p. 1). These recommendations are lofty and efforts to fulfill them will take years. Concomitantly, there is, and will be, the pervasive and ongoing needs for care.

Music therapists have long worked in dementia care to (a) optimize cognitive, social, physical, and emotional functions; (b) manage behaviors; and (c) support caregivers. Yet, past music therapy research in dementia is often criticized for its lack of rigor, and rightfully so. Many early music therapy dementia research studies, some of them mine, failed to meet the criteria for meta-analyses and scholarly reviews, sometimes due to design flaws and often due to inadequate descriptions of the clinical protocol, theoretical framework, measurement outcomes, and their implications. Without such information, it is not possible to scientifically evaluate effectiveness. Further, because of these limitations, it is not possible to replicate interventions in subsequent research to determine the influence of functional restoration on the sustainability of outcomes ,including improved life quality.

It is essential to gather information from music therapy researchers who were not required for past publications to include detailed descriptions of their clinical protocols or to articulate their theoretical frameworks upon which interventions were built. Access to this information can supply a wealth of knowledge that is integral to ongoing research development in the profession. Further, it is crucial to glean input from clinical music therapists who have ongoing knowledge and expertise in dementia care. These professionals develop and use protocols that yield predictable outcomes every day. They are poised to provide essential information for future research efforts.

A great deal is already known about music therapy treatment of those with dementia and their caregivers, though much of it has not yet appeared in print, or if it has been published, it has not withstood scholarly criticism for its rigor. Still, the past work of early researchers and today's clinical music therapists offer inroads to treatment for those with dementia and their caregivers that can inform future research. It is wise to pursue and examine this rich knowledge as efforts to develop a scholarly research agenda for dementia move forward. And move forward it must, to inform music therapy clinical practices that are so direly needed for the increasing number of those experiencing the insidious diseases of dementia and for their caregivers.

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Acquired Brain Injury with Comorbidity

Wendy Magee

Abstract

Acquired brain injury (ABI), including traumatic brain injury (TBI) and stroke, results in significant challenges to society in terms of health care costs. The incidence of TBI within civilians in the USA each year is approximately 1.7 million (The CDC, NIH, DoD and VA Leadership Panel [CDC], 2013), and 33,149 U.S. military personnel were diagnosed with a TBI in 2011 alone (CDC, 2013). Among the military personnel population, the rate of TBI is believed to be underestimated, especially for identifying mild TBIs sustained (CDC et al., 2013). Alongside the incidence of TBI, 795,000 people suffer a stroke each year within the U.S. (CDC, 2012) with stroke being a leading cause of long-term severe disability, as nearly half of older stroke survivors experience moderate to severe disability (CDC, 2012).

People who have ABI often manage a complex combination of changes to their physical, cognitive, and communication functioning, affecting their psychological, social, and emotional well-being. Other less evident comorbid factors may be involved, such as depression, personality disorder, or substance abuse, and it is essential for health and education professionals to address these factors in order to provide appropriate care. This paper discusses the current research in music therapy with ABI, and identifies gaps in the research, particularly considering the needs of veteran populations with TBI and mild TBI. Topics for future research with ABI with comorbidity to close these gaps are proposed. Areas for clinical training and supervision are identified.

Definitions

Acquired brain injury (ABI) is an umbrella term that includes a range of conditions stemming from rapid onset of brain injury. The underlying causes range from traumatic injuries, caused by head injury or postsurgical insult; vascular accidents, including hemorrhagic or ischemic strokes and subarachnoid hemorrhage; cerebral anoxia, caused by a starvation of oxygen within the brain; toxic or metabolic events such as hypoglycemia; and viral infection or inflammation (Royal College of Physicians, 2004).

Symptomology

ABI is usually defined by the level of severity of injury, categorized as mild, moderate, severe, or profound. Impairments span the motor, cognitive, communication, sensory, and psychosocial domains as well as arousal. Hemiplegia (paralysis) and hemiparesis (weakness) are common after brain injury, affecting mobility and the ability to carry out activities of daily living. As this affects levels of independence, improving ambulation and upper extremity (hand, arm, shoulder) function are important for an individual to optimize her/his independence and quality of life (Bradt, Magee, Dileo, Wheeler, & McGilloway, 2010). Cognitive deficits are less visible and therefore can go undetected. Difficulties with attention, memory, learning, and executive functioning (the ability to plan and execute tasks) all can be impaired, affecting optimal rehabilitation of function. Communication difficulties are common after brain injury: speech and language (expressing and understanding) are often impaired as well as social pragmatic communication skills. Mood and behavior disorders remain one of the greatest barriers to reintegration into the community (Giles

& Manchester, 2006), as these impairments affect motivation to engage in rehabilitation. When combined with deficits in reasoning and insight that can limit the recovery of lost functions, the individual is at risk of entering into a cycle of depression (Bradt et al., 2010). Behavioral disorders stemming from frontal lobe involvement can result in serious limitations, including irritability, aggression, disinhibition, reduced anger control, rigidity, social awkwardness, impaired social awareness, and egocentrism (Magee et al., 2011). The combination of any of these impairments across domains risks leaving the person isolated with a reduced quality of life.

Comorbidity in ABI Rehabilitation

Evidence suggests that comorbid factors associated with mood, behavior, and substance abuse are significant problems for people living with ABI. With the growing military population living with ABI in the U.S., awareness is rising of comorbid factors associated with the burden of illness after ABI, including personality disorders, depression, post-traumatic stress disorder (PTSD), sleep disturbances, and substance abuse (King & Wray, 2012). Such difficulties highlight the complexity of distinguishing whether mood and behavior disorders stem from primary neurological causes or as a part of psychological adjustment to living with chronic disability and the ensuing social isolation and changes in social status. Maladaptive coping mechanisms involving substance abuse further hinder recovery and readjustment (CDC et al., 2013) and may reflect an individual's existing coping style or reveal the involvement of cognitive impairments in reasoning, insight, problem solving, and judgment. The prevalence of suicidal ideation is as high as 25% in veteran populations, particularly in those with substance abuse problems (King & Wray, 2012). Post-stroke depression and apathy are also serious and common concerns, estimated to be as high as 33%, which can impede functional recovery (Matsuzaki et al., 2015).

Current Music Therapy Evidence-Based Practice and Research

A Cochrane review of music therapy with acquired brain injury (Bradt et al., 2010) is being updated at the current time (Magee, Clark, Tamplin, & Bradt, in preparation). Cochrane reviews provide meta-analyses of quantitative research on a defined topic. These reviews are considered the highest level of evaluative evidence for a health care intervention in medicine due to the rigorous criteria used for evaluating studies to be included; analyzing combined studies, which increases the number of cases being examined thus providing greater power in the results; and the criteria on which studies are evaluated minimize bias in research. The debate over which type of evidence is "best" is outside the discussion provided here. However, the type of evidence that Cochrane reviews generate is held in great esteem in medicine and rehabilitation, and is used as an indicator of an intervention's efficacy and effectiveness and as a guide for including music therapy in service provision. Therefore, the importance of Cochrane findings in rehabilitation should not be underestimated. The recommendations from the previous review are summarized here. Insights from the updated review (Magee et al., in preparation), current at the time of this writing but not yet complete, are also provided. The updated review includes studies in which music-based interventions have been delivered by professionals other than music therapists.

Overview of Current Music Therapy Evidence-Based Research and Gaps in the Research

Motor domain: Rhythm-based methods may be helpful in improving gait parameters and upper limb functioning in people with ABI. Specifically, rhythmic auditory stimulation may help improve gait velocity, cadence, stride length, and stride symmetry in stroke patients.

Upper extremity functioning may improve during rhythmic auditory stimulation, it could not be determined that it is an effective intervention due to an insufficient number of studies. Magee et al. (in preparation) have included a larger number of studies for motor rehabilitation (n = 13).

Communication domain: Two systematic reviews have examined the efficacy of music-based methods to improve speech and language outcomes in people with neurological disorders. There is not sufficient evidence from controlled trials to support the use of music therapy for improvement of speech and language outcomes in ABI (Bradt et al., 2010; Hurkmans et al., 2012). A music therapy rhythmic-melodic voice training technique (SIPARI) significantly improved the speech profile of people with chronic aphasia (Bradt et al., 2010). Melodic intonation therapy has been researched most frequently; however, treatment protocols did not follow recommended dosages (Hurkmans et al., 2012). Measurable recovery was reported across 15 studies; however, poor methodological quality and contradictory interpretations of recovery mechanisms weakened the evidence (Hurkmans et al., 2012). Magee et al. (in preparation) include five studies. Because the outcomes tested across studies are so varied, it has been difficult to pool results. Evidence for music's effect on naming and repetition only will be reported from two studies (Magee et al., in preparation). Findings from systematic reviews do not reflect the evidence that is emerging from neuroimaging studies that tend to draw on case study design. Positive effects for brain plasticity have been shown following intensive music-based methods to address communication in people with ABI (Schlaug, Norton, Marchina, Zipse, & Wan, 2010). These results fall outside of the Cochrane reviews but illustrate the neural mechanisms underlying behavioral changes, supporting clinical observations, and providing supportive evidence that meta-analyses are failing to find.

Psychosocial domain: Bradt et al. (2010) found no studies of adequate methodological quality to include that examined mood or social skills and interactions. However, Magee et al. (in preparation) will report on mood state from two studies and quality of life from two studies. Psychosocial difficulties, including mood and social relationships, remain an under-investigated area in music interventions with ABI populations. In particular, research is needed on music's effects on the comorbidity factors contributing to the burden of illness, most of which fall within this domain, as these are significant for the survival of people with ABI.

Sensory domain: Only one study was included examining pain in ABI (Bradt et al., 2010) and there are no new studies to be included in the review update. This remains an under-investigated outcome in music interventions with ABI populations.

Behavioral domain: As with the sensory domain, only one study was included examining agitation in ABI (Bradt et al., 2010), with no new studies to be included in the review update.

Cognitive domain: Evidence for the effects of music therapy on cognitive functioning was not examined in the previous Cochrane review. However, this domain has been added to the updated review and results will be provided for the effects of music interventions on domains of memory and attention from two studies (Magee et al., in preparation). Effect on cognition remains an under-investigated outcome in music interventions with ABI. Cognition is an important domain due to its position with comorbidity factors contributing to the burden of illness and thus its contribution to survival in people with ABI.

Overall Recommendations for Research:

1. Considerably more research is needed to examine the effects of music interventions on the psychosocial and cognitive domains, given the relevance of these domains to well-being and survival in people with ABI. Evidence-based guidelines need to be developed and standardized. Under-investigated domain areas such as behavioral and sensory domains should also be prioritized.

2. Greater consistency is required across studies for the specific outcomes examined within a domain, e.g., memory vs. attention vs. neglect within the domain of cognition. Future research needs to examine outcomes that can be compared ***between*** studies so that the results of specific outcomes can be pooled in meta-analyses and contribute to the evidence base.

3. This report has examined research with adults with ABI only. Research on children with ABI is woefully lacking across all disciplines, and is a major priority within health care.

4. Lastly, future research should draw on "user led" research models to increase awareness of what is important to people living with brain injury with comorbidities. Drawing on these models will help the music therapy profession understand service users' priorities and guide the type of evidence we generate.

Please note: This report has examined research with adults with ABI only.

Training Music Therapists for Evidence-Based Practice

Greater knowledge translation from research to practice is essential. Therapists entering the work force need to be trained in:

1. understanding that people with ABI will be motivated to work toward functional goals, particularly within the motor domain;
2. rhythmic auditory methods for the motor and communication domains;
3. the importance of measuring outcomes of MT in rehabilitation, including how to access and use music and non-music-based measures relevant to rehabilitation; and
4. a broad range of methods for communication and psychosocial goals for which there is, as yet, no supportive research evidence, but expert clinician evidence exists.

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PANEL THREE

➢ Considerations for Future Research in Selected Clinical Topics: Acquired Brain Injury with Comorbidity Additional Considerations

Concetta M. Tomaino

Research for the sake of knowledge building and professional development, as important as it is, may not increase the need for music therapy services for those with Acquired Brain Injury (ABI). Over the past few years there has been a dramatic increase in studies that demonstrate the efficacy of music therapy (MT) in treatment of ABI, and increasingly, MT is included in the staffing for acute hospital rehabilitation. However, MT is not readily available in sub-acute care and is not reimbursable under Medicaid (some states do allow waivers for TBI). Given the reality of access and availability to music therapy by those with ABI, what are the barriers to music therapy access for this population? What area(s) of research will lead to improved access to MT from the first day of brain injury through to the sub-acute phase?

Are there subsets of ABI patients for whom MT will have a greater impact on recovery as compared with traditional therapies (OT, SLP, PT)? For example, how effective is MT as core treatment for those with ABI with cognitive impairment, depression, or lack of motivation? Each of these issues is difficult to treat in traditional rehabilitation therapies leading to extended sub-acute rehabilitation or placement in long-term care due to lack of improvement. What area of research will address the comorbidity (depression, PTSD) issues that greatly impact a person's ability to return to the workforce? What types of MT interventions lead to structural changes in the brain, such as Melodic Intonation Therapy (MIT) for persons with non-fluent aphasia? Recent neuroscience case studies have revealed very clear evidence of the impact of this very specific therapeutic music technique on neuroplasticity (Merrett, Peretz, & Wilson, 2014; Schlaug, Marchina, & Norton, 2009). Such research can and should be done in collaboration with neuroscientists. If prescriptive uses of music are researched and developed, however, are these treatments considered as music therapy treatment? How about other "sound-based" interventions, e.g., rhythmic cuing—can this be used solely by a physical therapist without a music therapy consult? What is the role of MT in the assessment and prescription of specific therapeutic music-based interventions? Can this be researched?

If the demand and funding for music therapy services both came together seamlessly in the next five years, who will provide those services and what qualifications will they need? There are 184,000 physical therapists licensed in the U.S. By comparison, there are approximately 6,400 MT-BCs and only a small subset work with this population. If there are not enough music therapists to fill the slots, who will provide the services—music practitioners? Well-informed musicians? Should research focus on the efficacy of a tiered model of music therapy delivery, which includes MT training and oversight of other health care professionals and/or others on how to apply basic therapeutic music techniques? If there is a need and interest in more music therapy services but not enough MTs to provide those services, the profession will become obsolete in a very short time.

Some research effort should investigate the sustainability and growth of MT to serve this population. What models exist from other professions, such as the American Medical Association, which encouraged the development and growth of PAs and NPs in efforts to deal with capitated costs of Medicare and Medicaid?

While there are many important research questions to answer in regard to demonstrating the impact of music therapy on the rehabilitation of those with ABI, and Dr. Wendy Magee has addressed these, I also think a priority should be investigating professional models of growth and

barriers to expansion of the profession of music therapy within this area of health care for which music therapy has already gained recognition.

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PANEL FOUR: Research Capacity Building—Infrastructure, Education and Training

Infrastructure

Joke Bradt

Abstract

When exploring the needs of research in the music therapy profession, we typically think of the types of clinical research we need to build our evidence base. However, without addressing research infrastructure issues, identifying clinical areas in need of research may be a futile exercise. This is particularly true in the music therapy profession where research infrastructure is very limited. In this paper, This paper focuses on human research capacity as well as funding capacity in music therapy, including the limited numbers of doctoral-level scholars, the preponderance of teaching faculty positions, the lack of a postdoctoral research culture, the need for adequately developed research programs, difficulties in obtaining major research funding, and the need for clinician researchers.

When exploring the needs of research in the music therapy profession, one typically thinks of population-specific research that is needed in order to build music therapy's evidence base (e.g., controlled clinical trials for music therapy interventions with people with autism or with veterans). However, without addressing research infrastructure issues, identifying clinical areas in need of research may be a futile exercise. This is particularly true for the music therapy profession in which research infrastructure is very limited. In this paper, I will focus on issues related to human research capacity as well as funding capacity in music therapy, including (a) the limited numbers of doctoral-level scholars, (b) the preponderance of teaching faculty positions, (c) the lack of a postdoctoral research culture, (d) the need for adequately developed research programs, (e) difficulties in obtaining major research funding, and (f) the need for clinician researchers.

According to the AMTA 2014 Workforce Analysis, there are 99 music therapists with an advanced research degree (i.e., Ph.D.). However, only a limited number of those music therapists are currently research-active or have a funded research program. Dr. Kenneth Aigen, in his recent publication in *Music Therapy Perspectives* (Aigen, 2015), rightfully questions whether the music therapy profession has an adequate pool of researchers to even begin to conduct the number of randomized controlled trials (RCTs) needed to establish evidence-based practice (EBP) for the many different populations we serve. Literature reviews and systematic reviews clearly indicate that the majority of controlled clinical trials in music therapy have been conducted with medical populations. Few controlled clinical trials are available in the areas of autism, veterans, older adults, or mental health, for example. To meet evidence-based practice demands, we urgently need to increase research in these areas, but who will conduct these trials?

A major issue that we face in the music therapy profession is that most music therapists who graduated with a Ph.D. are employed in teaching positions. Because of heavy teaching loads and administrative responsibilities, very little or no time is left for research productivity. Only a small number of teaching faculty manage to conduct research in addition to their other responsibilities. This limited time to conduct research results in the publication of small-scale single studies and typically prevents the development of an actual research program. To date, we have only a handful of music therapy scholars who hold actual research faculty positions. The limited number of research-active scholars is, I feel, at the heart of music therapy's struggle to meet EBP demands.

I would like to propose two strategies that may begin to ameliorate this dire situation. However, I acknowledge that both of those strategies pose major implementation challenges. First, a cultural shift is urgently needed at universities with music therapy programs from viewing music therapy faculty positions exclusively as teaching positions to envisioning them as research faculty positions. This may be impossible at universities that are not categorized in the Carnegie Classifications as research universities with very high research activity (RU/VH) or with high research activity (RU/H). However, at RU/VH and RU/H institutions, this should be possible. Why, at these universities, are tenure-track music therapy faculty positions predominantly teaching positions with little release time for research? Research faculty positions can bring in major funding, partially support the cost of the faculty line item, and contribute significant overhead dollars to the university. Furthermore, faculty in research tenure-track lines are positioned to develop externally funded research programs that can employ post-doctoral students and student research assistants. Of course, music therapy training programs also need teaching faculty, given the large enrollment numbers in many programs. Therefore, I am in no way suggesting that all faculty positions should be research faculty positions. However, RU/VH and RU/H institutions should at least have one research faculty member amongst their music therapy faculty.

This leads me to my second suggestion, namely, the need to create a culture of post-doctoral research. At this time, the music therapy profession lacks post-doctoral research opportunities. Many, if not most, Ph.D. students graduate from doctoral programs with their dissertation research as their only applied research experience. If more faculty members had well-developed, funded research programs, these students would have the opportunity for significant development as researchers through research assistantships during their doctoral studies and postdoc positions following graduation. Postdoc positions are essential for gaining research experience beyond dissertation research and for building a track record of successful research, which then positions music therapy scholars for successful funding applications. Furthermore, being part of research teams at the postdoc level can greatly increase scholars' passion and excitement for research. Increased commitment to research would increase the likelihood that these future faculty members will advocate for obtaining research faculty positions as they negotiate job offers at institutions of higher education. In addition, they may be inspired to create research positions at existing research centers (e.g., integrative health research centers, mind-body research centers, etc.). At this time, given the lack of postdoc positions, Ph.D. students should be encouraged to look for postdoc positions outside of the music therapy profession or apply for postdoc funding rather than immediately applying for faculty positions.

Another issue related to research infrastructure is the availability of research funding. Few music therapy researchers have been successful in obtaining major funding for their research. In the current funding climate, obtaining funding is indeed extremely challenging. At the same time, few music therapists are actually applying for major government grants (e.g., NIH grants). A few strategies could help increase funding success. First, music therapists should engage in team science to improve funding success (Burns, 2014). Solo research endeavors are rarely funded these days as they lack the necessary expertise for the many aspects of a research study. Second, it is important that music therapy scholars develop a clear, progressive research program with selection of appropriate funding mechanisms for each stage of the research. Prospective researchers should consult the *Framework for Developing and Testing Mind Body Interventions* published by the National Center for Complementary and Integrative Health (NCCIH, 2015). Music therapy scholars should collaborate with music therapy clinicians to develop and implement preliminary studies in order to obtain feasibility and pilot data necessary for applying to larger funding mechanisms. I would suggest a mechanism be established within the profession to track music therapy funding applications and success rates. This could, for example, be accomplished by adding a related series of questions to the professional member annual survey conducted by AMTA.

My remarks thus far have exclusively focused on music therapy scholars with advanced research degrees. I indeed believe that people need significant research training in order to conceptualize, develop, and implement high-quality research studies. Graduate music therapy curricula include introductory research information and opportunities for students to develop skills. Graduate programs, however, cannot adequately prepare music therapists to independently conduct clinical studies. However, these clinicians are of crucial importance to increasing our research output. Moreover, clinicians have extensive clinical expertise that is invaluable to the development of research. Therefore, music therapy clinicians with an interest in research are strongly encouraged to partner with music therapy scholars for collaborative research efforts. The profession of music therapy can learn important lessons by studying efforts in the field of nursing to stimulate nurse practitioners to conduct research. Not unlike music therapy, nursing has struggled significantly with research capacity building (Cooke, Nancarrow, Dyas, & Williams, 2008). During the past two decades, there has been an increase in nurse research positions in hospitals, faculty practice initiatives, and more (Darbyshire, Downes, Collins, & Dyer, 2005). However, it is often difficult to secure funding from the institution (e.g., hospital or university) itself to fund such positions. Darbyshire and colleagues (2005) present a successful strategy for funding a research fellowship at their hospital through foundation funding. Cooke et al. (2008) suggest several strategies for increasing research activities in clinicians, including (a) development of research skills in practitioners through workshops, courses, and mentorship activities; (b) provision of funding that enables practitioners to do research alongside practice; (c) provision of fellowship training; and (d) creation of small research teams that consist of at least one novice researcher and one academic researcher. The small research team uses an apprenticeship approach whereby the more experienced researcher supports the novice researcher. I would like to recommend that AMTA explore the establishment of a research foundation arm that could support and facilitate the growth of small research teams that involve clinicians and/or research fellowships.

In summary, the music therapy profession urgently needs to increase the number of research-active music therapy scholars who have well-developed research programs and who value a team science approach to research. In order to do this, cultural shifts are needed at university music therapy programs so that more research faculty positions are created. In addition, it is important that we develop support systems to enable more music therapy clinicians to become research-active. AMTA could play a significant role in this by establishing a research foundation arm.

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PANEL FOUR

➢ Research Capacity Building—Infrastructure, Education and Training: Infrastructure
Clinicians' Perspective

Sarah Thompson

Clinicians are at the forefront of the push for increased recognition and funding. They are our "boots on the ground" in state battles for recognition and often feel the effects of policy changes most acutely. The impact of their clinical work ripples out to family members, friends, and other health care professionals in exponential fashion, shaping public opinion of music therapy along the way.

A few years ago, the Division of Workers' Compensation in the state of Colorado asked me to serve on an advisory panel for the revision of the medical treatment guidelines for traumatic brain injury (State of Colorado, 2012). My clinical work had made a positive impression on colleagues who were serving on the task force for the project, and they gave me a spot at the table. I engaged in intense conversation with the physician who led the group in reviewing the strength of the research behind each and every intervention that was listed in the guidelines. By their standards, "evidence" was nothing less than a Cochrane review. However, he and I discussed each research article that I provided to him, including the clinical relevance of research outcomes for some of our real TBI survivors. How would having a particular skill really help a person on a daily basis? Could we expect that he or she would maintain the improvement reported, and if so, for how long? How does the outcome of the music therapy intervention impact the cost to the insurer? The years of work that other researchers had put into their projects directly impacted my ability to argue for inclusion of music therapy in the medical treatment guidelines, and ultimately impacted access to music therapy services in the state of Colorado. Research led to policy changes, which, in turn, increased funding and access.

The more research you read, the more you realize how much more there is to be done. How can we capture the brilliant work that is going on every day in the field and potentially impacting clients served by the profession? I believe that we must establish communication infrastructure between clinicians and researchers so that we may better connect with each other and begin collaboration.

As a clinician, I have struggled to gain access to research articles that the public library, Google Scholar, and other free resources do not carry. I am hungry for the scholarly information that is readily available to researchers. How does a researcher find out what trends and protocols are emerging in clinical work? It is imperative that we forge communication channels and combine the knowledge from our researchers and clinicians into best practices for each clinical population. We need to update these best practices regularly and communicate them to our clinicians in order to have maximum impact.

We have a wonderful opportunity with this symposium to enact practical changes that can facilitate communication and collaboration between researchers and clinicians in the music therapy profession. This partnership is crucial to continued funding and job retention for Board Certified Music Therapists, as well as shoring up the very foundation of the profession of music therapy.

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PANEL FOUR: Research Capacity Building—Infrastructure, Education and Training

Education and Training

Deanna Hanson-Abromeit

Abstract

In order to prepare students for the future and to build their capacity for translating, integrating, applying, and conducting research, we need to address music as a complex stimulus within the context of human problems, health, and well-being. Teaching from an evidence-based practice perspective breaks apart the complexity of music therapy practice and research, and creates an education and training model that empowers critical thinking and creativity. We can empower students to stay curious, engage in the questions, and create solutions by tackling problems through the lens of the systematic review process. We can embed research-based concepts and methodologies into the undergraduate and graduate curriculums to help students move from a "what to do" stimulus-response approach to a "how to do it" and "why I am doing it" approach that provides context for theory-based intervention design for clinical and research application. And advocating for active transdisciplinary collaboration allows us to look outside of our profession at the views and solutions emerging from other disciplines, to integrate theory-of-change solutions and to be solid in our role and capacity as part of the team.

As an educator, I feel a great sense of responsibility to prepare the music therapist for the changing world within which we live, to hold high expectations for standards of excellence, and to prepare students for music therapy service delivery that may look vastly different in the future than how it looks today. In order to prepare students for the future and to build their capacity for translating, integrating, applying, and conducting research, we need to address music as a complex stimulus within the context of human problems, health, and well-being. So, how do we keep up and prepare the future music therapist for a more complex world, with wide-ranging complicated diagnoses and problems, and with music as our modality?

We stay curious, we engage in the questions, and we create solutions.

Over the years I have integrated my own advancing learning and research experiences into teaching and clinical training. What has become clear is music therapy practice is in a continuous and synchronized feedback loop with research and theory. To integrate research into teaching and training, I use metaphors, such as being a detective or creative play, to provide concrete structure to the students' curiosity and entice their questions. Then I introduce tools from research to help them engage in the questions and spiral the integration of concepts across courses. As students advance, their questions become more sophisticated and their knowledge of how to use the tools more autonomous; thus, they begin to create their own solutions—and start asking harder questions.

The more I integrate research concepts into teaching and training, the more I teach "how" to think and act, rather than "what" to think and do. Teaching from an evidence-based practice perspective breaks apart the complexity of music therapy practice and research and creates an education and training model that empowers critical thinking and creativity. Research concepts that have been helpful in teaching, and are supportive to evidence-based practice, include the systematic review, theory-based intervention development, and transdisciplinary collaboration.

Evidence-based practice combines the most relevant and effective research with the practice wisdom of the clinician and the needs of the client. We can help students begin to develop practice wisdom through reflective practice. Reflective practice is the critical analysis of the behavior, thinking, and emotion from an experience that leads to improved performance (Barradell et al., 2015). Reflective practice is a component of clinical reasoning—the characteristics of an expert clinician that allows one to gather information, formally and informally, to assess, analyze, and make a sound professional judgment (Koharchik, Caputi, Robb, & Culleiton, 2015). Fostering reflective practice, while simultaneously giving students tools and a knowledge base from which to develop clinical reasoning, can be developed through an understanding and application of the systematic review. The systematic review is a rigorous research methodology that is being utilized across the health and social sciences to synthesize a body of research to inform intervention decisions. The methodology of the systematic review provides an excellent teaching tool.

Students can be curious, engage in the questions, critically analyze the literature, and create solutions by tackling clinical problems through the lens of the systematic review. The concepts and processes of the systematic review are effective tools for the clinician and researcher to resolve clinical questions and practice guidelines, as a first phase in the development of a research project, and as part of our educational curriculum (Hanson-Abromeit & Sena Moore, 2014). Characteristics of the systematic review that I have incorporated into clinical training include writing questions and operational definitions; refining database and key word searches; and reading, coding, analyzing, interpreting, and synthesizing the literature.

Worksheets and other teaching tools break down the process and provide students with the structure to search, read, code, analyze, and synthesize primary sources. Guided discussions support their translation and synthesis of the primary sources for application to practice. Over the last 4 years, I have intentionally integrated the systematic review methodologies into my teaching, clinical work, and research. Since introducing this concept into the curriculum, undergraduate students are selecting a wider range of basic and applied science articles that demand a higher level of understanding than what had been traditionally assigned, and graduate students are embracing it as a research methodology. Two graduate level projects have resulted in publications in our professional journals (Sena Moore, 2013; Stewart & McAlpin, 2015). This past spring an interprofessional collaborative systematic review was started with several upper-level undergraduate students.

The processes of the systematic review embedded into the curriculum not only give students a research methodology for independent research, but allow students to apply these techniques to theory-based clinical practice and intervention development. The components of the systematic review also prepare students for the application of evidence-based research to theory development for clinical practice and intervention research.

Theory-based clinical practice supports the movement away from teaching a “what to do” stimulus-response approach to a “how to do it” and “why I am doing it” approach that provides context for theory-based intervention design. Teaching and training from a “how to think” approach prepares students for clinical and research application by giving them the courage to expand intervention characteristics and to work with non-traditional populations, or those lacking research in the music therapy literature. Theory-based clinical practice reduces the ambiguity of intervention development and application and gives students a traceable context to enhance intervention evaluation. It also helps them develop terminology and a language with which to articulate their intervention plans in both written and oral formats. In essence, theory-based clinical practice cultivates a rationale for the appropriateness of music therapy, an understanding of the

bigger issues related to the phenomenon, as well as an emerging explanation of the mechanism for therapeutic change—the "so what" factor. Theory-based clinical practice will also contribute to intervention development, refinement, and reporting (Camp, 2001; Mazurek Melnyk & Morrison-Beedy, 2012; Robb, 2012). One way I have promoted theory-based clinical practice is to borrow from research the terminology and illustrations of the conceptual framework and apply it to clinical practice.

A conceptual framework is an illustration of a complex array of material organized into a simple form. Conceptual frameworks are based on concepts that are built on the existing evidence-based literature and connected together in a meaningful way to help us structure and understand the phenomenon (Camp, 2001; Jabareen, 2009; Knobloch, n.d.; Leshem & Trafford, 2007). A conceptual framework illustrates the identification, categorization, interpretation, and integration of concepts from the existing knowledge (Jabareen, 2009; Leshem & Trafford, 2007; Shields & Rangarajan, 2013) that may or may not yet be tested and hypothetically supports outcomes. Through repetitious interpretation and assessment, a conceptual framework supports the emergence of a theory (Jabareen, 2009; Kazdin, 2007). A conceptual framework will allow the researcher, clinician, or student to organize and interpret the collected information (Leshem & Trafford, 2007; Shields & Rangarajan, 2013) in a way that helps music therapists and others make sense of the information (within and outside of the profession) (Jabareen, 2009). Components of the conceptual framework include the problem statement, covariates, mediators, moderators, mechanism, and outcomes.

The conceptual framework organizes the wide and complex amount of information for a clinical problem, reducing ambiguity and increasing critical thinking and decision making. It also structures students' knowledge so they can clearly identify specific and intentional components to frame the intervention development, ultimately allowing for a traceable context to analyze how and why music may have been the mechanism for change. Students construct the intervention based on the Therapeutic Function of Music Plan, a theory-based articulation of how the musical elements will support the goal (Hanson-Abromeit, 2015), and therapist effectiveness strategies. We begin introducing the conceptual framework early in the curriculum and build complexity into these concepts in the upper-level undergraduate coursework and in graduate seminars. The more these concepts are applied in my own research and that of graduate students, the more obvious the application of these concepts to clinical practice becomes and the better I get at refining the translation to teaching and training.

Teaching and training music therapy students, from the undergraduate to the graduate student, in a way that prepares them for the future of music therapy is complex. Complexity has been described as a wicked problem that requires transdisciplinary imagination and solutions (Brown, Harris, & Russell, 2010). Transdisciplinary research differs from interdisciplinary research in that it explicitly includes non-academic stakeholders in the collaborative process (Tress, Tress, & Fry, 2006). Team science is a way to engage cross-disciplinary groups to address the complexity of the world's social, environmental, and public health problems through research and practice perspectives (Stokols, Hall, Taylor, & Moser, 2008). Transdisciplinary considerations and a team science approach can broaden student knowledge and foster preparedness for clinical practice and research in a professional world that will demand both clarity in value and a higher level of integration of care from the various disciplines. Transdisciplinary team science can also be integrated into teaching and training through team-based learning, interprofessional education, and actively modeling transdisciplinary team science in our own research and practice.

Team-based learning is a teaching approach that fosters critical thinking and engagement—skill sets required for evidence-based practice. The essential principles of team-based learning are:

1. Teams have to be permanent for the duration of course, formed in a manner that supports the development of group cohesiveness and equally distributes student resources among the groups (i.e., not all the high-level students or friends in a group).
2. Students have to be accountable for their individual and the team's work.
3. Assignments have to promote both learning and team development and are best if presented on a continuum of simple to complex.
4. Students must receive timely and frequent feedback (Michaelson, 2003).

I have started to more actively use a team-based approach in most of my classes. It has allowed for knowledge discovery, improved student engagement, and ownership of course content and higher levels of thinking and contributions, as well as a growing level of professionalism and collegiality in the classroom.

Another form of collaborative learning is interprofessional education. Interprofessional education is a collaborative learning process that gives students from different health care disciplines opportunities to learn about and with each other. The purpose is to build stronger interdisciplinary collaborations and improve patient outcomes (WHO, 2010), particularly important as a student moves from a training environment to professional practice. Four music therapy students at the University of Kansas and I were invited to work with seven nursing students from Indiana University under the direction of Dr. Sheri Robb. The interprofessional education experience is a research project. Dr. Robb and I are mentoring a large systematic review of music-based intervention research in health care. We are all excited about the process and outcomes of the study, but are also fascinated with the experiences of interprofessional education. Future campus-based interprofessional education experiences could be a way to expand teaching, training, and research opportunities for students.

As I engage in more transdisciplinary team science experiences, I also try to integrate students, particularly at the graduate level. This has included graduate equivalency students attending process meetings as teams construct and pilot clinical interventions. And it involves graduate student research projects as an extension of a primary project as we build systematic depth and breadth to a research project. Thus students are able to witness the formation of a research project, experience being part of team, actively contribute to components of the bigger project, and be part of the solutions to the inherent challenges that arise in the construction and implementation of a research project. While transdisciplinary collaboration brings its own level of complexity, it also opens the door to new ways of viewing research and practice and provides even more tools for building research capacity into teaching and training music therapy students.

The systematic review, theory-based intervention development, and transdisciplinary team science are some examples of how I have embedded research concepts into teaching and training. As I search for solutions to my research questions and learn of different methodologies, I see a clear translation to music therapy teaching and training and have begun to integrate research concepts into my teaching—but I've only just begun. There is so much more for us to discover, create, understand, and integrate into the music therapy profession.

We must be lifelong learners in how we conduct and translate research so we can recognize and construct the connection to teaching and training. We must stay curious, with a willingness to engage and look deeper and wider at the questions we uncover. And we must integrate evolving

concepts into the teaching and clinical training of the music therapist, building complexity to match and push our own and our students' development in order to create solutions.

So I leave you with a few provocations of my own:

- How do we empower students to think and act critically and creatively?
- How do we help students understand the complexity of human function and interaction, paired with the complex stimulus of music?
- How do we prepare them for a world of music therapy that may not yet exist?
- How do we understand, interact, and integrate with other disciplines while maintaining and building our own identity that is embraced and revered?
- How do we stay current with research methodologies and ways to integrate them into our teaching and training without becoming overwhelmed?
- How can we better translate research methodologies to clinical teaching and training, as well as translate our research to meaningful substance for our clinical students?
- How do we increase the rigor and experience of research in our Ph.D. programs in the context of the current environment in which many of these programs sit, while also preparing graduate students for a shift in this context?

As we ponder how to build capacity for research in music therapy education and training, I implore us to be willing and brave—to stay curious, to engage in the questions, and to create solutions. This means we have to turn over a few rocks and then be willing to see what is under the rocks we turn over. Next, we have to express action by looking deeper and wider. Looking deeper means we have to be interested in what we uncover, and, in some cases, we have to have courage, courage to look deeper at how we perceive, understand and engage with our profession. Next, we have to look wider—we have to broaden our view by accounting for our own beliefs and those of other disciplines. And then we have to look again and again and again (Hanson, 2011).

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PANEL FOUR

➢ Research Capacity Building—Infrastructure, Education and Training: Education and Training Clinicians' Perspective

Christine Neugebauer

Developing research capacity should commence upon academic training and continue throughout one's career whether the music therapist is a clinician, researcher, or educator. The initial training, both academic and clinical, should be consistent among academic programs and theoretical models, providing fair and equal access to information and resources. Currently, some music therapy clinicians struggle not only to access evidence-based research but also to understand and translate the research into practice. Because there are numerous gaps in our research base, we need to understand the process music therapists are using when making best practice judgments to provide clinical interventions to populations with little or no music therapy research base. Examining the music therapy process of seasoned clinicians may guide research protocols and develop methods for best practice. Moreover, music therapists are challenged every day by physicians and other allied health care professionals, facility administrators, and insurance companies to justify their services as well as differentiate music therapy from therapeutic uses of music. Although music therapists do not "own" music, we need to articulate the indications and contraindications for music therapy techniques from those of music medicine. Because music therapy does not have a common language for the interventions we use, consistency in examining treatment strategies poses additional challenges.

Dr. Hanson-Abromeit presents an interesting proposal for creating a paradigm shift in our education and training model to "empower critical thinking and creativity." Many of her recommendations should continue during the clinical internship component through specialized projects that integrate the concepts of systematic review, conceptual framework, and transdisciplinary collaboration so that the future professional has both the knowledge and skills for application in the clinical setting. Since there is a critical need for music therapy practitioners to be actively engaged in clinical research, developing opportunities for specialized training in music therapy research, a non-Ph.D. alternative, would offer another pathway to obtain the knowledge and foundation for conducting quality clinical research. Establishing more Ph.D. programs, including distance programs that can be completed part-time, would allow clinicians to maintain their positions while pursuing higher education. In addition, a mentoring program that includes pairing clinicians with academic researchers sharing the same interests could potentially improve the dialogue and collaboration between the two. A timely and recent study by Waldon (2015) in the *Journal of Music Therapy* states, "Elevating the research competency of all music therapists is a task that is better assumed with a sense of shared responsibility rather than placing the burden on a single arm of the profession" (p. 189). Fostering this mindset from the moment one begins a career in music therapy is critical to the future of our profession.

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RECOMMENDATIONS and CONCLUSIONS

Recommendations by Topic

Six breakout groups convened in which participants discussed topics related to Panels Two, Three, and Four, responded to a set of questions, and generated 42 recommendations.

Charge to the Workgroups

Each workgroup was charged with discussing and preparing recommendations to guide future research over the next decade, and beyond, focusing on their topic assignment. Workgroups developed recommendations with the aim of advancing access and quality to music therapy services. As a result, recommendations may include broad-based strategic ones as well as more specific and focused research recommendations.

Policy Imperatives [11 recommendations]

1. Define and describe the intervention using accepted standards of specification in published research and as part of research planning. When planning a research study, the music therapy intervention needs to be identified and specified by intervention and not just by the term "music therapy."
2. Conduct music therapy studies that focus on specific interventions for specific diagnoses/conditions. Numerous past published studies have commingled populations and conditions, especially in group music therapy settings. In order to prepare to ask for Medicare coverage of specific interventions/procedures, future research needs to examine (isolate) the research for one particular intervention for one particular diagnosis.

3. List the ICD-10 diagnosis of the research participants to help link the benefit of a particular intervention to a particular diagnosis.
4. Present a research briefing on Capitol Hill and include a famous spokesperson to headline to attract key legislators and staff to attend.
5. Partner with the health sciences field to conduct research, encourage team science, and secure lines of funding.
6. Recommend the creation and addition of a policy section to *Music Therapy Perspectives*.
7. Commission white papers on all populations for which there is a substantial body of research evidence. White papers could be written by population work groups with teams of clinicians and researchers.
8. Recommend research prioritizing the following clinical areas:
    - Autism Spectrum Disorder
    - Dementia
    - Traumatic Brain Injury and Acquired Brain Injury
9. Create a research document for each population for the purpose of advocacy. This is envisioned as a fairly simple document that is specifically geared toward legislators and policy makers.
10. Partner with researchers and/or economists qualified to support cost effectiveness and economic studies. For example, analyses recommended include the following areas:
    - A study in dementia to examine the potential effect (reduction/change) on use of psychotropic drugs associated with the use of music therapy interventions.
    - A study exploring the potential impact (reduction/change) in institutionalization (e.g., admissions, readmissions, and LOS) related to MT-BCs training caregivers in music-based techniques.
11. Approach private insurers for coverage of NICU interventions.

Clinical Population—Autism Spectrum Disorder [9 recommendations]

1. Focus research in music therapy and autism spectrum disorder (ASD) on the following target domains/areas:
    - Motor/sensory
    - Cognition
    - Mental health
    - Comorbidity
    - Pain perception
    - Musical development
2. Define and provide detail on clinical decision making and service elements in current music therapy practice with persons with ASD. This definition includes research addressing the following questions:
    - What is the role of music in the intervention?
    - What is the role of the clinician?
    - How do music therapists (MTs) set goals?
    - How do MTs determine the rate, frequency, dose, and length of treatment?
3. Define and incorporate consumer experiences and needs in music therapy services with persons with ASD. This recommendation includes research addressing the following questions:
    - What brings consumers to music therapy (MT)?

- What are the consumers' desired outcomes?
- What does MT mean for consumers?

4. Conduct comparison studies in music therapy and ASD. This recommendation includes consideration of comparison research studies between outcome domains (inter-domain), among approaches (within MT practice), cost-effectiveness analyses, and between disciplines (outside MT profession).
5. Incorporate family/peer-supported services in MT with persons with ASD. This recommendation includes research regarding the role and impact of MT services mediated by parents, peers, or siblings.
6. Conduct research regarding MT services across the lifespan among persons with ASD. This recommendation includes research in the following areas:
   - Effectiveness of MT for adults
   - Community music-making
   - Accommodations for success in the community.
7. Ensure research includes cultural considerations including investigation of MT as vehicle for social change, acknowledging the culture of clients, and neurodiversity.
8. Move toward standardization of music therapy assessments in MT practice with persons with ASD.
9. Focus research on the following settings:
   - Medical
   - School
   - Home
   - Clinic
   - Community

Clinical Population—Alzheimer's & Dementias/Older Adults & Aging* [5 recommendations]

1. Expand research applications with new publications.
2. Create partnerships and collaborations with Centers on Aging, community agencies, researchers, etc., in order to improve quality of research, evaluation, training, access, etc.
3. Improve research methodology to design decision tree analysis for MT interventions and include data that would contribute to cost effectiveness studies in research, when possible.
4. Disseminate research to improve clinician access to MT and research on related disciplines to a) ensure high quality clinical care and b) establish AMTA as the centralized source of information on state-of-the-art music therapy for persons who are aging.
5. Increase visibility of music therapy research nationally and internationally in established advocacy and policymaking bodies (e.g., Alzheimer's Association NAPA, AARP, Trial Match).

*This workgroup recommended that the scope of the workgroup topic should expand to include older adults and aging populations in addition to persons with Alzheimer's and related dementias.

Clinical Population—Acquired Brain Injury (ABI) & Comorbidity [6 recommendations]

1. Identify and disseminate evidence that MT is effective in treating ABI and co-morbidities.
2. Demonstrate the relative cost-effectiveness of MT interventions in this clinical population.
3. Utilize expert clinical opinion as a form of evidence and to help drive research agendas.

4. Include the voices of patients with ABI in MT research (service-user led research).
5. Generate clinical data sets that can be shared to support lines of MT research in this clinical topic.
6. Incorporate research frameworks to develop lines of research that speak to colleagues in other disciplines.

Building Research Capacity: Research Infrastructure [5 recommendations]

1. Create a portrait of the current music therapy research infrastructure with case studies of best practices, including examples from universities, clinical research faculty positions, and research fellowships.
2. Increase meaningful engagement of clinicians in research, including as Principal Investigators.
3. Increase research-active scholars among persons with doctoral level training to support their regular and active involvement in research programs and to support development of lines of research.
4. Increase postdoctoral opportunities through raising awareness of research career paths and through PhD faculty mentors.
5. Include the voice of the consumers (as partners and collaborators) in music therapy research.

Building Research Capacity: Research Infrastructure – Education, Continuing Education, and Training [6 recommendations]

1. Explore best practices in the education of evidence-based and evidence-informed MT practice.
2. Expand methodologies to include clients' and clinicians' voices in the MT body of research.
3. Develop opportunities for post-doctoral training and education in MT practice and research scholarship.
4. Develop and conduct focus groups to identify continuing education needs unique to each of the following roles: educators, clinicians, internship directors, and researchers (online, regional, state, national).
5. Explore ways to make research relevant to clinical practice, e.g., engage clinicians and researchers in responding to publications.
6. Create mechanisms to disseminate information on available grants, mentorships, fellowships, and post-doctoral opportunities.

(For additional comments, see Appendix C on Commentary from Breakout Groups)

RECOMMENDATIONS and CONCLUSIONS

Conclusions

MTR 2025 is an initiative of AMTA geared towards stimulating conversation about building research capacity and growing the production and usage of high quality research in music therapy.

Multiple cross-cutting themes emerged at MTR 2025 symposium. Here is a selection:

- **Consumer Impact**. The critical importance of consumers' voices in music therapy research, planning, and implementation
- **Clinician Involvement**. The essential role of the practicing music therapist in accessing and using published research, and in participating in research as clinician-scholars and as part of team science
- **Diverse Methodologies**. The value of embracing diverse, complex, and integrated research methodologies
- **Theory**. The need to further develop, integrate, describe, and link theory and theoretical models in music therapy research with well articulated and defined music therapy interventions
- **Research Capacity Building**. The need to grow research capacity among music therapists with attention to both research infrastructure as well as education, training, and continuing education
- **Economic Analyses**. The importance of including, where appropriate, cost and economic analyses as part of music therapy research including building research partnerships with individuals skilled in cost analyses and economic research
- **Expanding Partnerships**. The value of expanding and growing collaborations, partnerships, and networks (including interdisciplinary team science) for efficient and productive work in important lines of research

The recommendations developed by symposium participants represent only a fraction of the important dialogue and exchange occurring before, during, and continuing after the symposium. As we rocket towards the year 2025, it is important that each individual consider one's role and contribution in growing and sustaining a legacy of research to inform practice and, ultimately, benefit our clients and their families.

This symposium was just the beginning. Following the July, 2015, symposium, AMTA continues MTR 2025 with an array of discussions, activities, and processes to infuse, embed, and integrate research as a cross-cutting and essential feature of clinical and association functions designed to increase access to and quality of music therapy services.

APPENDICES

APPENDIX A: Symposium Agenda

All Meetings Held in Conference Center Auditorium (Except Breakout Groups)

Thursday, July 16 - 7:00 PM-10:00 PM

DINNER
5:00-6:45 PM

Welcomes:

7:00-7:15 PM

- Amy Furman, MM, MT-BC, AMTA President; Andrea Farbman, EdD, AMTA Executive Director; Barbara Else, MPA, LCAT, MT-BC, AMTA Senior Research Advisor, MTR 2025 Coordinator

Opening Keynotes:

7:15-800 PM

- Overview: Importance of Research for Improving Access and Quality — Pamela Hinds, RN, PhD, FAAN, Associate Center Director, Center for Translational Science, Children's Research Institute; Director, Nursing Research and Quality Outcomes, Children's National™

8:00-8:40 PM

- Cultures of Inquiry in Music Therapy Research and the Changing Landscape of Knowledge Generation and Implementation — Sheri Robb, PhD, MT-BC and Tony Meadows, PhD, MT-BC

When viewed as a whole, music therapy research has moved through several important stages of development, characterized by differentiation and integration of philosophies and perspectives that parallel changes occurring in the broader national research community. This includes an emphasis on diverse methodologies and a more integrated approach to research. Central to advancing the science and practice of music therapy is finding ways to develop and integrate this knowledge across these research cultures, while meeting both internal and external demands for research that demonstrates improvements in quality and access to care.

8:40-9:00 PM

- Qs & As/Discussion — Barbara Else

9:00-10:00 PM

- Reception, Maritime Memorabilia Room, Conference Center

Friday, July 17 - 8:00 AM-5:30 PM

BREAKFAST
6:30-7:45 AM

8:00-8:10 AM

- Overview of Day's Agenda: Barbara Else

Panel One: Music Therapy Research Needs: Moderator, Sheri Robb
8:10-9:25 AM

- Themes from Surveys/Interviews

  8:15-8:25 AM
  - Summary of Findings — Barbara Else

  8:25-8:35 AM
  - Educators' Perspective — Lori Gooding, PhD, MT-BC

  8:35-8:45 AM
  - Clinicians' Perspective — Annette Whitehead-Pleaux, MA, MT-BC

Friday, July 17 - 8:00 AM-5:30 PM (cont.)

As part of the agenda-setting process for this meeting, members of the Advisory Team surveyed and conducted informal interviews with music therapy professionals, asking a set of open-ended semi-structured questions. This panel highlights salient themes emerging from survey/interview data of perceived research needs. Educator and clinician perspectives are provided.

- Perspectives/Considerations on Theories, Methods, and "So Whats?"

8:45-9:00 AM
- The Identity of Music Therapy and the Uniqueness of our Dilemma — Ken Aigen, DA, LCAT, MT-BC

9:00-9:15 AM
- Expanding Methods, Deepening Understanding — Debra Burns, PhD, MT-BC

How does the research process grow and evolve in music therapy practice? Examples highlight the important questions, potential impact, and interplay of theory, methods, and approaches. Additional discussion focuses on bridging the interests and information needs of various audiences and the extent to which interested parties influence future research. Deb and Ken share thoughts and guidance for navigating knowledge gaps and the myriad of research interests by focusing on clinically relevant questions and corresponding theories and methods.

9:15-9:25 AM
- Qs & As/Discussion — Sheri Robb

Panel Two: Policy Imperatives: Moderator, Linda Demlo, PhD
9:25-10:00 AM

9:25-9:45 AM
- The Impact of Research on Music Therapy Recognition, Access, and Funding — Judy Simpson, MT-BC

Government Relations Director, Judy Simpson, shares her thoughts regarding future music therapy research as it informs policy imperatives. Judy summarizes input from a variety of colleagues regarding the role and use of research in policy-making and advocacy at the federal, state, and local levels. Practical examples are used to illustrate how research and lines of research are related to and influenced by funders, decision makers, policy-makers, and employers.

9:45-10:00 AM
- Qs & As/Discussion — Linda Demlo

10:00-10:30 AM

BREAK

Panel Three: Considerations for Future Research in Selected Clinical Topics: Moderator, Joke Bradt, PhD, MT-BC
10:30-NOON

10:30-10:50 AM
- Autism Spectrum Disorder — Blythe LaGasse, PhD, MT-BC and respondent, John Carpente, PhD, LCAT, MT-BC

10:50-11:10 AM
- Alzheimer's and Related Dementia — Hanne Mette Ochsner Ridder, PhD and respondent, Alicia Clair, PhD, MT-BC

11:10-11:30 AM
- Acquired Brain Injury with Comorbidity — Wendy Magee, PhD, Music Therapist and respondent, Connie Tomaino, DA, LCAT, MT-BC

Three clinical subtopics were selected to highlight opportunities for future research: ASD, Alzheimer's and Related Dementias and Acquired Brain Injury (ABI). These topics coincide with large segments of practicing music therapists and have been identified by policy-makers and funders as areas where research findings impact policy and funding. Each topic leader will outline considerations for future research in music therapy drawing from the literature and knowledge of trends in current music therapy practice. Respondents will add commentary and supplement remarks.

11:30-NOON
- Qs & As/Discussion — Joke Bradt

Friday, July 17 - 8:00 AM-5:30 PM (cont.)

LUNCH
12:00-12:50 PM

Panel Four: Research Capacity Building: Infrastructure, Education and Training: Moderator, Alicia Clair
1:00-2:20 PM

1:00-1:30 PM

- Research Infrastructure — Joke Bradt, PhD, MT-BC
  - Clinicians' Perspective — Sarah Thompson, MM, CBIS, MT-BC

1:30-2:00 PM

- Music Therapy Education and Training — Deanna Hanson-Abromeit, PhD, MT-BC
  - Clinicians' Perspective — Christine Neugebauer, MS, LPC, MT-BC

Music therapists are invested and passionate about building research capacity. Panelists offer conceptual ideas and factors for consideration regarding research capacity building for two major topics: a) research infrastructure and b) music therapy education and training. In addition to the perspectives of educators, the perspectives of practicing clinicians and intern supervisors are represented because of their importance to the dialogue, and the unique set of challenges and needs of practicing clinician/scholars.

2:00-2:20 PM

- Qs & As/Discussion — Alicia Clair

Breakout Group Directions: Barbara Else

2:30-5:30 PM

- Breakout group participants discuss topics, respond to a set of questions, and prepare recommendations

Group 1- Building Research Capacity: Infrastructure	(Auditorium)
Group 2- Clinical Focus Topics: ASD	(A302)
Group 3- Clinical Focus Topics: Alzheimer's and Dementia	(A312)
Group 4- Clinical Focus Topics: ABI with Comorbidity	(A313)
Group 5- Building Research Capacity: Education and Training	(A314)
Group 6- Research Needs for Policy and Decision Makers	(A315)

DINNER
5:30-7:00 PM

7:30 PM

- Breakout Group Recommendations due to Barbara Else

Saturday, July 18 - 6:30 AM-Noon

BREAKFAST
6:30-8:15 AM

8:30-8:45 AM

- Final Housekeeping — Barbara Else

8:45-10:00 AM

- Reports of Breakout Working Groups

10:00-10:30 AM

- **BREAK and Hotel Checkout**

10:30-11:00 AM

- Final Respondent Panel

11:00-11:30 AM

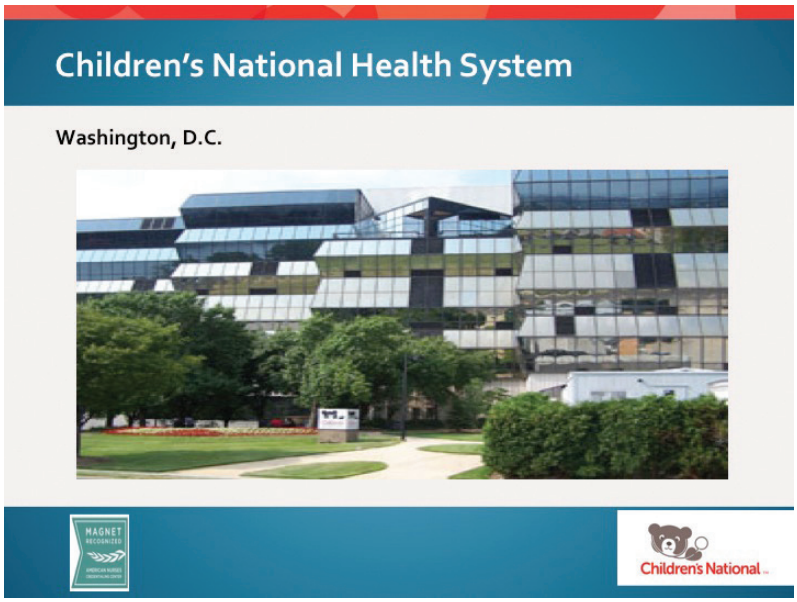
- Audience Interaction

11:30-NOON

- Conclusions, Evaluations and Farewells

7/13/15: Agenda subject to change

APPENDIX B: Hinds Keynote Presentation Slides



Overview of Comments

- The unique function of research as a source of evidence
  - *the challenge of keeping research 'useful'*
- The contribution of research to legacy making
  - *the challenge of avoiding or diminishing 'other'*

The Unique Function of Research

- The evidence source that is the promise of a better future
  - Trustworthy knowledge to address the chaos of today's health care systems
  - Attending to immediate needs is a must but concurrently planning for the future is as well.

Discovering New Knowledge and Making it Trustworthy

- Thoughtful Theory Selection, Assessment and Testing
  - *Explanation, understanding*
- Method Selection – guided by purpose and context
  - *Feasibility*
  - *Truth seeking (no one method equates to finding truth)*

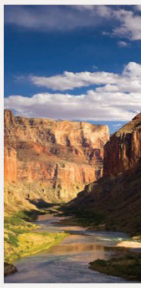
Discovering New Knowledge and Making it Real

- Making the research real to another person or group
  - True anecdotes coupled with explanation
    - Visiting elected officials regarding nursing and a presence on the NIH campus
  - Findings conveyed with meaningfulness – quiet passion and commitment

'Research Being Useful': What Does that Mean?

'The purpose of life is not to be happy. It is to be useful, to be honorable, to be compassionate, to have it make a difference that you have lived and lived well.'

Ralph Waldo Emerson



Being a Useful, Research-Based Profession

What does it mean to be a 'useful' profession?

- To be a 'useful, research-based profession?

Being 'Useful' Precedes Being Essential
(contributing knowledge is part of becoming essential)

Being a Useful Profession Through Research and New Knowledge

Does 'unique knowledge' justify a profession?

Potentially yes, but:

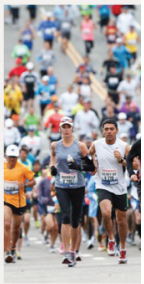
- *The research question that is asked may differ by discipline or profession*
- *Unique application of knowledge to profession-related situations and circumstances*

Advancing 'Useful Research' to Advance Health: Alone?

When to Lead?

When to Co-lead?

When to Team?



Being Useful through Research: Mistake Making

"Science, my lad, is made up of mistakes, but they are mistakes which it is useful to make, because they lead little by little to the truth.

Jules Verne

Children's National

Music Therapy Research 2025:

LEGACY MAKING

AMERICAN MUSIC THERAPY ASSOCIATION®

What is a Legacy?

A Legacy:

- A gift to others
- A representation of what is important to the person or group that is declaring the legacy
- An action that has purpose intended to benefit others over time

A Legacy Map

- Career or discipline meaning and purpose
- Depiction of intended direction of career or group efforts

AMERICAN MUSIC THERAPY ASSOCIATION®

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Anatomy of a Legacy Map

- The Declared Legacy
- Current Steps designed to achieve the desired legacy
- Planned sequential steps to achieve the desired legacy
- 'Other'

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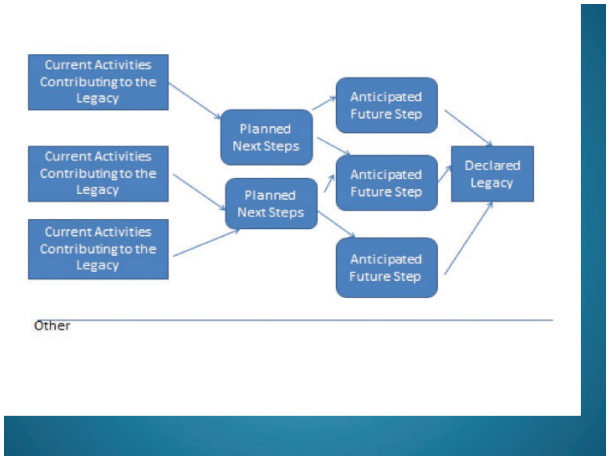
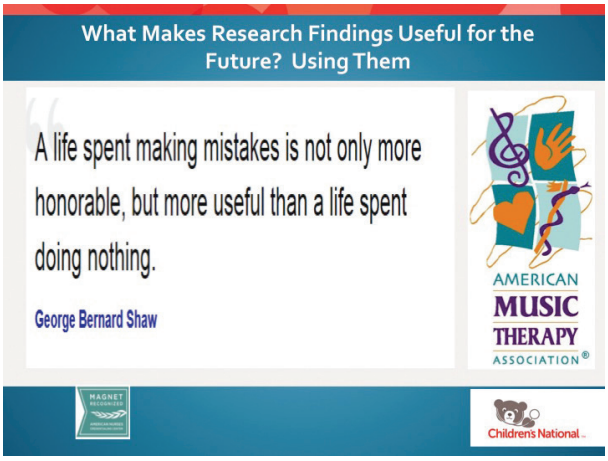
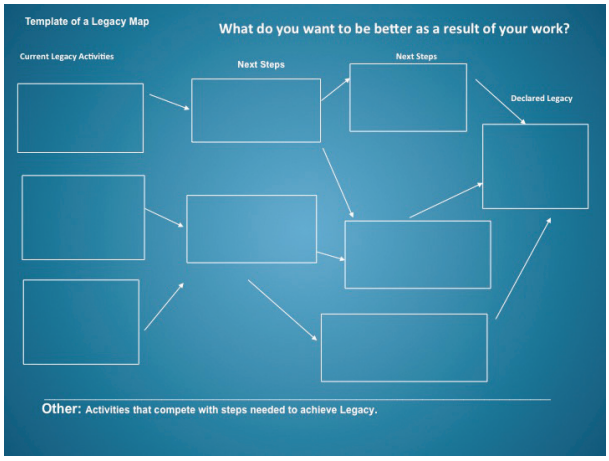

Current Activities Contributing to the Legacy
Current Activities Contributing to the Legacy
Current Activities Contributing to the Legacy
Planned Next Steps
Planned Next Steps
Anticipated Future Step
Anticipated Future Step
Anticipated Future Step
Declared Legacy
Other


What Makes Research Findings Useful for the Future? Using Them
A life spent making mistakes is not only more honorable, but more useful than a life spent doing nothing.
George Bernard Shaw
AMERICAN MUSIC THERAPY ASSOCIATION
Children's National

Using Research to Inform Health Policy: Political Will
Determine policy relevance at the time of developing the research idea
• Deliberate process
• Identify relevant policy for the research
• Identify and engage all stakeholders
Report research findings to inform policy
**Add these steps to the research legacy map for the American Music Therapy Association
Children's National


Template of a Legacy Map
What do you want to be better as a result of your work?
Current Legacy Activities
Next Steps
Next Steps
Declared Legacy
Other: Activities that compete with steps needed to achieve Legacy.

Research and Political Will

Does the current political climate possess the political will to change current practices based on the research findings?

Which institutions or agencies of government or private enterprise demonstrate interest?

Will the research findings have the capacity to potentially affect a large group of people that are identified as national priority areas?

Policy, Political Will and Legacy

Communicate the legacy/ goal of your science

- What difference will it make to the health of individuals and families?

Know the policy context of your science

- What policy can advance your science?
- What policy can challenge your science?
- Inform policy makers for political will to advance science for individuals and families

Reflect research and policy goals in legacy mapping

Researchers Being 'Useful' Researchers and Citizens

Changes in health policy requires researchers and their associations to be policy leaders.

- Can not assume the research speaks for itself.
- Policy is made by people who see themselves as leaders and take an informed seat at the table
  - *Mary Wooley, President Research America Foreword Shaping Health Policy through Nursing Research.*

Research and Legacy Making:

"To visualize that which doesn't exist, yet to believe with confidence that it can be realized, is truly something miraculous." Richard D. Sagor

"What we leave behind is not engraved in stone monuments but woven into the lives of others."

Pericles

APPENDIX C: Closing Commentary from Breakout Group Representatives

Each of the six breakout groups was asked to appoint a representative to present any additional comments that they wanted to highlight. Five of the six group reports are summarized in this section.

PANEL TWO–Policy Imperatives

Michael Viega

> Songs are funny things. They can slip across borders. Proliferate in prisons. Penetrate hard shells. I always believed that the right song at the right moment could change history.
> –*Pete Seeger*

I am honored to be the responder for the Breakout Group on policy imperatives, at the American Music Therapy Association (AMTA) Symposium, "Improving Access and Quality: Music Therapy Research 2025." The report from the policy and research group is grounded in a thorough examination of the topics presented during the symposium, as well as the historical perspective, lived experience, expertise, and political savvy of its members. The recommendations in the report highlight the impact that research has on policy and legislation, as well as the importance of AMTA's state task forces and government relation so that we can clearly communicate the necessity for recognition of music therapy to legislators.

One of the common threads within this breakout group's report is the need for researchers to define and present the boundaries between music therapy and other related fields that utilize music in health and healing. This discourse has been heightened in the past few years due to increased media attention on the power of music, such as the release of the *Alive Inside* documentary film in 2014. As we continue to explore the boundaries of music therapy research and practice in the face of growing public awareness, I would like to take this opportunity to advocate for an unrelenting commitment to diversity, pluralism, and partnership in the challenges we face; these traits were acknowledged in this report, as well as throughout the symposium.

My first conference as a music therapy student was in 1997 at the American Music Therapy Association Conference in Cleveland, Ohio, which marked a new era of unification for our field. I see a connection between the challenges faced in the 1980s and 1990s of integrating Associations (American Association of Music Therapy and National Association of Music Therapy) and today's efforts for music therapy to find its place within a wide umbrella of related fields that use music in healthcare. In 2025, I see music therapists not leading the discussion on the role of music and health, but instead finding equal value and partnerships within all related fields; I see music therapists who are comfortable and secure within the boundaries of what they provide in relation to others. From an empowerment perspective, we cannot rely on public perception to validate what we do. In fact, the discourse that drives policy and legislation should reflect our inner-confidence and authenticity, which will in turn be projected out to the public.

For me, I find such assurance in my identity as a musician and within music's health benefits that stems from its relationships, structures, processes, and experiences. Aigen (2009) states "the ability to connect the specific properties of one's means of intervention to a specific outcome is an essential aspect of a modern approach to healthcare" (p. 240). This assertion acknowledges that we can identify the uniqueness of our profession by examining the experiences that are indigenous to our practice. What music therapists bring to the table is a rich understanding of the moment-to-

moment changes and dynamics that unfold while musicing with others. As Abrams (2011a, 2011b) has inferred, music therapists listen to the health needs of others in unique ways through our shared musicality and the way we engage in musical relationships, even when no sound is present.

How does the issue of keeping music in the center of professional discourse apply to policy and legislation? In many ways, the move towards bringing music to the foreground is already happening. For instance, the American Music Therapy Association's Master Level Entry Subcommittee (2015) has suggested that the 21st century music therapists must be highly trained musicians and be able to use the elements of music throughout the treatment process. Therefore, when issues such as harm and contraindicated practice arise in relation to legislative action, we should communicate the distinctiveness of the relationships and experiences native to our profession. By harnessing the knowledge that is indigenous to our profession, we can better demonstrate to legislators the need to protect the public from unlicensed practitioners.

Finally, attention must be brought to how we collectively respond as a to issues of class disparity, structural racism, LGBTQI and gender equality, environmental sustainability, and countless other urgent global issues that impact the people we work with as music therapists. Our policies and advocacy should reflect solidarity with voices we serve and find ways to bring them directly into decision-making processes. It is our job as professionals to engage in challenging and uncomfortable discourse regarding the issues noted previously; learn from the people we serve; acknowledge our privilege and power as helpers; and use this knowledge for the betterment of others through our policy, advocacy, and legislation.

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PANEL THREE–Clinical Focus Topic: Autism Spectrum Disorder

Christy Joy (CJ) Shiloh

To those of you who participated in the other work groups, consider with us the extraordinarily broad and "weighty" topic of current ASD research in general, that we felt must first be acknowledged before formulating directions for music therapy research into the next decade. Consider ASD alongside all of the other populations we might work with as clinicians. Whether it be in a hospital, in mental health settings, even in older adult or hospice settings, the likelihood of working with someone on the spectrum impacts all of us, and this likelihood will only increase in the decades

to come. Consider the mysteries, controversies and even politics surrounding autism research in general. Imagine our downright struggle as a work group, attempting to grasp the task set before us in formulating research needs within our profession.

As a disability rights advocate even before I became a music therapist (even more specifically as a Neurodiversity Movement advocate), I consider it an honor to have a moment to share some of my thoughts on this topic, and thank you Annette Whitehead-Pleaux for suggesting that I be the respondent for this work group.

Throughout our time yesterday afternoon, I diligently reminded myself of one important phrase that I have learned from my autistic friends. (As an aside, I use the phrase "on the spectrum" by default, unless I am speaking to or about someone I know who prefers identity-first language, and is in fact offended by person-first language similarly to what we see in Deaf culture.) At any rate, the crucial phrase I have learned from my friends at Autistic Self Advocacy Network is "nothing about us, without us."

For us to position ourselves at the cutting-edge of research over the next decade, we will need to remain knowledgeable of new studies published in all related disciplines, both in medical and social models. We will need to remain knowledgeable and open-minded to new theories and ways of viewing and treating persons with autism, both in medical and social models, and allow this progress to impact our own studies.

For example, current research findings being made even now in related fields, demonstrate that perhaps autism is even more of a motor disorder (or difference, if you will) than a social disorder, this can make a huge impact on our own studies, working with people across the spectrum. I typically avoid using potentially offensive terms such as "high or low functioning," but instead think in terms of needing higher or lower levels of support and
accommodations. But across the spectrum, music therapy has the potential to make huge, significant impact upon the entire field of autism research. And again I remind myself, "nothing about us, without us." For example, I remember the many people I know on the spectrum who have perfect pitch or who play by ear better than I could ever wish for, and I remember those who depend on the flow of rhythmicity to support their motor movements in typing their deepest of thoughts from their hearts and untapped intellect.

We must also consider the emotional support for caregivers, siblings, and peers, and how these supports can create positive secondary outcomes for those on the spectrum. Music therapy is already making a great impact in all of these areas, in ways that only music can address. We have such an immense opportunity before us and there is a certain urgency that I feel, in bringing more clinicians to the research table, in order for us as a profession to lead the way in autism research.

PANEL THREE–Clinical Focus Topic: Alzheimer's Disease and Dementia

Joshua W. Schrader

When our breakout group began working on our project, we went around the room and introduced ourselves. Most individuals said their name and why they thought they were selected to be in the group. Examples included, "My name is so-and-so and I've done extensive research with this population," or "My name is so-and-so and I've extensive clinical work with this population." Having done neither, I defaulted to a typical Josh-style sarcastic answer and said something along the lines of, "My name is Josh Schrader. I am here I believe to be the token male for this group." Having known then what I know now, I would have changed my answer to say something like,

"My name is Josh and I am here to champion this cause."

Today, I would like to briefly summarize the trajectory of medicine as I see it, cite some stats on the aging of the World, issue a challenge to our profession while casting a vision of what the outcome might look like, and the leave us with some hope.

In 2008, America was in the midst of a presidential election campaign. It was common place during that time to hear discussions centered on the following questions: How are we going to pull this economy out of a recession?; What are we going to do about the millions of people without health insurance?; What are we going to do about illegal immigration?; and, What are we going to do about Social Security? You know that those Baby Boomers are getting ready to retire. Fast forward seven years and a remaining truth is that the Baby Boomers are retiring en mass.

The aging of the world is probably not new news to any of us in this room. Many of us know the reasons for this. The reasons include advancements in medical technology, new research, less invasive procedures, more effective pharmaceutical interventions with fewer side effects and less dosage requirements, increased access to medicine, increased emphasis on wellness as a prophylactic effort, and a better, more expansive, understanding of what it means to treat the whole person. We know that diseases and disabilities do not occur, nor are contained, in a vacuum. One thing always influences another. Therefore, effectively treating any person means the clinician should always be managing treatment that addresses the unique poly co-morbidity that exists in each individual client, which is ever present. We are never really just treating a singular item such as Autism, Alzheimer's, or Alcoholism. Rather, we are treating the unique cognitive, emotional, physical, and social constraints, abilities, and needs of the individual who also happens to have Autism, Alzheimer's, or Alcoholism. Additionally, the healthcare profession's understanding of treating the whole person has widened to include the patient's family, caregivers, support network, and community.

The key metric for assessing a healthcare system's overall effectiveness is the population's life expectancy. We should all be thankful to know that in America this number continues to go up and up. I pulled some stats before I left Washington D.C. this morning. The World Health Organization reports that the world wide number of people who are 60 years old or older is expected to increase from 605 million to 2 billion between the years of 2000 and 2050[1] and the Alzheimer's Association reports that by 2025, there will be a 40% increase in the number of individuals with Alzheimer's[2]. By 2050, that number may triple[2]. So, the train of service need is coming down the track and in many ways, is already pulling into the station. Which leads me to my question, "What are we going to do about it as a profession?" Are we going to stay on the station platform and watch the train roll on by? When we have missed an opportunity, are we going to decide to scramble to get our act together as a profession in order to jump on the band wagon and then beg and plead for a seat at the table? Some would argue that we have done this far too often before. Or are we going to be visionary in seeing the inevitability of this situation and get started now on working to establish ourselves as leaders in this space? In this scenario, we have the time-sensitive opportunity to set the table for others to join rather than begging for a seat at the table as usual. I don't know about you, but I get more joy from hosting than from being a guest.

Hope keeps us alive. This means that hope keeps us growing and developing too. To me, the greatest source of hope we possess for the vision that music therapists will one day be the future

[1] World population projected to reach 9.6 billion by 2050 | UN DESA | United Nations Department of Economic and Social Affairs (UN News Center) http://www.un.org/en/development/desa/news/population/un-report-world-population-projected-to-reach-9-6-billion-by-2050.html

[2] Are you ready? What you need to know about ageing (WHO) http://www.who.int/world-health-day/2012/toolkit/background/en/

leaders of healthcare in the space of aging individuals is that we have several individuals who have already dedicated their careers to doing decades of research in this space. Folks like Alicia Clair, Suzanne Hanser, and Anne Lipe, as well as international colleagues such as Hanne Mette Ridder. We merely need to pick up the ball they have given us and run with it. It is that simple. So, in many ways we are already half way there.

My final hope is that we prioritize this initiative for ourselves as individuals. Wouldn't it be amazing if the day comes when each of us is in an assisted living facility and we, are ourselves as former music therapists, are each being treated by the next generation of music therapists? Isn't this truly the ultimate sign of our success as a profession? I don't know about you, but I know myself well enough to say that I more than likely will be dealing with agitation in my older age. So, I'm probably going to need some music therapy. I will more than likely be a grumpy old man. So perhaps this is actually a plea for the future staff members that will have to deal with me one day.

Finally, I know that music was such a powerful and emotional part of each of our lives during our early years. It seems this may make us prime candidates to experience the "Alive Inside" phenomenon that we all saw "Henry" experience in the film. If the day comes when any of us suffer from Dementia, and you are wheeled into the day room to stare blankly at a TV, wouldn't you rather have a music therapist come see you and help you feel "Alive Inside" one more time?

To conclude, the world is aging and aging fast. Let's be leaders in this space and let's act now. Thank you so much.

PANEL THREE–Clinical Focus Topic: Acquired Brain Injury with Comorbidity

Lisa Gallagher

As I was listening to the various presenters throughout this amazing symposium, I was very surprised to learn that when many PhD students graduate their only applied research is their dissertation. This was a surprise to me because I know of many clinician-researchers, myself included, who do not yet have our PhDs, but we have already published several research studies. I, therefore, am in agreement with those who spoke of the importance of clinician-research, of clinicians providing expert opinions, and of clinicians being consulted on what they are currently seeing in practice and what they feel is important to research. All kinds of research is needed right now; but it is especially important to conduct research in a live, clinical setting as this will provide the most generalizable information that clinicians can easily apply to their practice.

In responding to the ABI Breakout Group presentation provided by Dr. Wendy Magee, I will be reviewing and summarizing our key points. First of all, it is imperative that we create more evidence that music therapy is effective in treating individuals with ABI. This evidence can include expert opinions and all other types and levels of research, but it must also demonstrate outcomes and cost-effectiveness. If we as music therapists do not do this type of research, someone else will, and it will not be done correctly; nor will it be an accurate representation of music therapy. Service user-led research is also important to include as it will allow patient voices to be heard. It is their stories that truly demonstrate the effectiveness of music therapy.

There are a wide variety of topics and outcomes variables that need to be addressed. The first is the impact on caregivers. Their lives are changed and affected almost as much as the individuals with ABI; therefore, they too would benefit from music therapy. Other crucial areas to research include mood, biopsychosocial factors, quality of life, coping, co-morbidities, social relationships, wellness, and overall survival. Since many individuals with ABI abuse substances,

are depressed, experience PTSD, are socially isolated, and have suicidal ideations, it is critical that they utilize appropriate coping mechanisms that can increase their chance of survival. Music therapy is primed to address all of these areas; however, increased research is needed in order to document its true effectiveness.

Early mobilization is also needed when working with individuals with ABI. The majority of research has been conducted in the rehabilitation setting; however, it is also possible to work with patients while they are still in the hospital. Researching the timing of the intervention, such as Day 1 versus Day 20, could provide valuable information. It would also be helpful to longitudinally follow patients from the acute hospital setting, to the skilled nursing facility, to outpatient rehabilitation and, finally, to the outpatient setting in general. This would enable the music therapist to be involved with clinical care paths and to influence the individual's progress throughout all stages post ABI.

In conclusion, we asked ourselves the question "what is our 10 year wish?" Our answer was the following: in ten years music therapy will be a standard treatment provided in rehabilitation for individuals with ABI.

PANEL FOUR–Building Research Capacity: Education and Training

Engaging in Generating Knowledge from a Reflective, Reflexive, Social Justice Perspective

Rebecca Zarate

Responding to the content and conversations of this meeting has brought me to consider that we have arrived at an intersection of engagement and reflexivity. These two components have been prevalent in the discussions not only from the education and training group that I was a part of, but throughout the meeting in conversations with colleagues, plenary sessions, and presentations. I respond to the overall felt sentiment of the need to consciously change the legacy map and the ways in which we engage with research as a crucial piece in moving forward with a solid research program for the organization and the profession. There are a few key areas that I wish to address in order for us to accomplish this.

First, there is a need for us to consider a cultural shift in the way in which we approach and identify the meaning of research. One suggestion would be that we consider the approach as one that is reflective and reflexive, so that we are mindful and inclusive of our individual and collective agency and its subsequent impact on trajectory. We have an opportunity for a cultural shift towards a research arena that is current and relevant for a global and diverse world; one that includes engagement of social justice practices to include the voices that are not currently contemplated or present within our body of research. This is key, and, if seriously considered, could cause as Howard Gardner describes, a much - needed 'tipping point' for shaping the future of what and who is included in a research strategy. It was a consistent theme throughout all groups; clinicians, clients, and their families, and clinician-researcher voices are actually required in order to generate significant and valuable knowledge, and dismantle the traditional privileged, and binary paradigm that we have historically attached to in our philosophical approach. Including a culture that invites variety of design and method that fit questions for complex social issues is crucial in the way we can change our engagement with research, and most importantly how such knowledge will contribute towards how others outside of the profession understand the impact of our work. This means that we must consider our political and aesthetic values that we place on the creative encounter within

our craft in meaningful ways to document and disseminate the essence of what we do as music therapists. By doing so we would strengthen our identity by providing a language, definitions that fit, and nurture and strengthen our artistic and creative ways of knowing within the flexibility of our mythology as music therapists.

Second, I respond to considering how we engage in a thoughtful research trajectory and map out our research portrait, again, from a reflective, and reflexive perspective. May we engage by finding operational strategies that make sense by creating national to local research pods in specific areas. Those areas could be the clinical realms that were covered in this meeting and the bigger complex social issues, which organizations such as what the WHO and UN are working on. By doing so we are included in the actual global, strategic conversations as well as taking care and nurturing the areas in which we already have a body of knowledge. There is a felt sense that strategic places to meet and work on organizing these areas is needed, and that includes all members in our community who are interested and who have expertise in each area. Such engagement calls for entering into interdisciplinary ways of knowing, by looking towards other countries, and other fields for successful models of best practices and strategies. We have heard of excellent sources of information from the esteemed keynote speakers, and our esteemed national, and international colleagues. They provided operational examples of real-world methods of educating, applying, and sustaining research programs. Last, I respond to a theme that was prevalent in my particular group, and that is to engage in a continuum of education that does not stop at the doctoral level and continues into the post doc level. From the undergraduate through to the post doc there would be a strategic blue print of research benchmarks that includes education, training, and access to interdisciplinary research, and the craft of team science.

Overall, there is an immediate need of how we educate the outside world and its perception and knowledge of what music therapy is and what it is not. Our professional identity and voice through our body of knowledge should be distinct so we can be identified clearly. In order for us to accomplish that, engaging in generating knowledge with an empowered, reflective, reflexive, and social justice stance is needed at this time.

APPENDIX D: Selected Glossary

- **Discipline**: A branch of knowledge

- **Evidence-Based Music Therapy Practice**: "Evidence-based music therapy practice integrates the best available research, the music therapists' expertise, and the needs, values, and preferences of the individual(s) served." AMTA. (2010). Retrieved from http://www.musictherapy.org/research/strategic_priority_on_research/overview/

- **Field**: A particular branch of study or sphere of activity or interest. Also a place where a subject of scientific study may be observed in the natural location, setting, or context, such as "field-based research". N.B.: The terms field and profession are often used interchangeably by authors and colleagues; however, there are some specific and more narrow uses of the term "field" by the Dept. of Labor and certain policy making circles.

- **Interdisciplinary**: See transdisciplinary

- **Modality**: A particular method or procedure

- **Occupation**: A set of activities or tasks that employees are paid to perform. Employees that perform essentially the same tasks are in the same occupation, whether or not they work in the same industry. Some occupations are concentrated in a few particular industries; other occupations are found in many industries. (Source: BLS)

- **Profession**: A paid occupation, typically one that involves extensive training and a formal qualification with credentialing

- **Transdisciplinary**: Relating to more than one branch of knowledge

APPENDIX E. Symposium Panelists

(in order of presentation)

Pamela S. Hinds, RN, PhD, FAAN, is Associate Center Director, Center for Translational Science and Director, Nursing Research and Quality Outcomes at Children's National Hospital in Washington, D.C. Her research focus is in quality outcomes, nursing research, and end of life treatment options. Dr. Hinds holds academic appointments as Professor of Pediatrics at George Washington University and as Adjunct Professor at the University of Maryland, College of Nursing.

Sheri Robb, PhD, MT-BC, is an Associate Professor and Director of the Undergraduate Honors Program at the Indiana University School of Nursing, Indianapolis, IN. She also serves as Program Director for the Indiana Clinical and Translational Sciences Institute KL2 Young Investigators Program. Her program of research focuses on development and testing of music therapy interventions to manage distress, improve positive health outcomes, and prevent secondary psychosocial morbidity in children and adolescents with cancer and their parents. She is internationally recognized for her work in pediatric music therapy and serves as Editor-in-Chief for the *Journal of Music Therapy*.

Anthony Meadows, PhD, MT-BC, is Associate Professor and Director of Graduate Music Therapy Studies at Shenandoah University. He is Editor-in-Chief of *Music Therapy Perspectives*, and serves on regional and national committees for AMTA. Anthony has more than 25 years of clinical experience, including more than a decade in adult cancer care. He has published widely, with a special focus on research methods and music and imagery. Anthony has twice received the Flagler Fultz Research Award from AMTA, and is currently completing an arts-informed qualitative research synthesis focused on improvisational music therapy practices.

Barbara Else, MPA, LCAT, MT-BC, is a Consultant and serves as Senior Advisor, Research and Policy with the AMTA. Barbara has extensive experience as a music therapist and as a researcher focusing on health policy and economics. Her clinical focus is in mental health. Barbara held past positions as a post-graduate Presidential fellowship working in the Public Health Service, Agency for Healthcare Policy and Research (renamed AHRQ) and U.S. House of Representatives.

Annette Whitehead-Pleaux, MA, MT-BC. Having worked in music therapy for over 20 years, much of Annette Whitehead-Pleaux's career has focused on pediatric burn care at Shriners Hospitals for Children-Boston. In addition to her clinical work, Annette has conducted clinical research on the effects of music therapy on pain. In 2003, she was awarded the Arthur Flagler Fultz Research Grant Award for her research on the effects of music therapy on pain and anxiety of pediatric patients undergoing medical procedures. She has an interest in and has written about using music assisted technology into music therapy practice, trauma, and multicultural issues. Annette is an Adjunct Professor at St. Mary-of-the-Woods College, teaching in both in MAMT and MTED Programs. She has served AMTA since 1997 in a variety of roles. She currently is the Speaker of the Assembly of Delegates.

Lori Gooding, PhD, MT-BC, is Director of Music Therapy at the University of Kentucky (UK). Her primary clinical experience has been in medical and mental health settings. She also established both the academic and clinical music therapy programs at the University of Kentucky. Dr. Gooding received a research grant from the National Institute on Aging and was the 2013 recipient of the

SER-AMTA research award. Her research interests include music therapy in integrative medicine and psychosocial care.

Debra Burns, PhD, MT-BC, is an Associate Professor and Coordinator of Music Therapy Programs at IUPUI. She is an active member of the American Music Therapy Association, chairing the AMTA Research Committee and serving as a member of the *Journal of Music Therapy* editorial board. Prior to joining the faculty at IUPUI in 2004, Dr. Burns completed a postdoctoral research fellowship funded by the National Institutes of Health, National Center for Complementary and Alternative Medicine. Her research training focused on alleviating symptom distress and improving the quality of life of cancer patients in active treatment. She maintains an active research program exploring the various benefits of music therapy for cancer patients across the disease trajectory. She has presented nationally and internationally on these topics. Dr. Burns received her Bachelor of Arts in Music Education from Glenville State College, her Master of Music in Music Therapy at Illinois State University and her PhD in Music Education and Music Therapy from the University of Kansas.

Kenneth Aigen, DA, LCAT, MT-BC, is an Associate Professor of music therapy at New York University. He is President of the Nordoff-Robbins Music Therapy Foundation, Inc. and a member of the International Trust for Nordoff-Robbins Music Therapy. He has published extensively on qualitative research, Nordoff-Robbins music therapy, and popular music in music therapy. He has authored books that are translated into Japanese and Korean and is the recipient of the AMTA "Research and Publications Award." He is also past-president of the American Association for Music Therapy and was the Chairman of the Scientific Committee for the Ninth World Congress of Music Therapy.

Judy Simpson, MT-BC, is Director of Government Relations, American Music Therapy Association. She holds advanced training in health management, health and education policy, and insurance systems. Judy has served as a working music therapist for over 30 years, helping clients make progress as she advocates on behalf of the profession of music therapy. She holds advanced training as a Managed Healthcare Professional through the Health Insurance Association of America (HIAA). She has published in the area of government relations, conducts trainings in advocacy, and speaks extensively throughout the United States.

Blythe LaGasse, PhD, MT-BC, is coordinator and Associate Professor of Music Therapy at Colorado State University. She is also a practicing music therapist specializing in working with children with autism spectrum disorders. Dr. LaGasse has publications specific to autism in *Frontiers in Integrative Neuroscience*, the *Journal of Music Therapy*, and *Music Therapy Perspectives*.

John Carpente, PhD, LCAT, MT-BC, is an Associate Professor of Music Therapy at Molloy College, Founder and Executive Director of the Rebecca Center for Music Therapy, and the Founding Director of the Center for Autism and Child Development at Molloy College. Dr. Carpente has been practicing music therapy, specializing in working with children with Autism Spectrum Disorder, for fifteen years. He has written several book chapters and journal articles on the topic of music therapy and autism, and has recently authored, "Individual Music-Centered Assessment Profile for Neurodevelopmental Disorders (IMCAP-ND): A Clinical Manual." He has presented his work internationally and domestically.

Hanne Mette Ochsner Ridder, PhD, is Professor and Head of the Doctoral Programme in Music Therapy at Aalborg University in Denmark, and president of the European Music Therapy Confederation (EMTC). She has a MA in music therapy, is a certified clinical music therapy supervisor, and received her PhD from Aalborg University in 2003. Her research focused on music therapy in gerontology and dementia care, as well as on the integration of qualitative and quantitative research in mixed methods research designs. She has presented widely at international conferences and lectured at a large number of music therapy training courses. She serves on advisory editorial boards for The *Nordic Journal of Music Therapy*, *Approaches*, and *Music & Medicine*, and has authored and co-authored many book chapters and refereed journal articles.

Alicia Clair, PhD, MT-BC, is known internationally for her expertise in gerontology and music therapy. She is Professor Emeritus and former director of music therapy, and coordinator of graduate studies in music education and music therapy at the University of Kansas. A music therapy practitioner for many years, Dr. Clair works with persons with Alzheimer's disease and related dementias and their caregivers, as well as with older persons with other disabilities, and persons who are well. Dr. Clair is past president of the National Association for Music Therapy (now the American Music Therapy Association). She was awarded the association's Service Award, Research Award, and Professional Practice Award. In 1991 she testified before the Senate Special Committee on Aging about the benefits of music therapy for older adults. Dr. Clair is the author of many research articles and the book, *Therapeutic Uses of Music With Older Adults*.

Wendy Magee, PhD, is Associate Professor, Temple University. Prior to this appointment, she practiced in neuro-rehabilitation as a music therapy clinician, researcher, manager and trainer between 1988-2011. She is an active researcher with diverse neurological populations and a Cochrane reviewer. Her primary research topics concern the applications of digital and electronic music technologies in music therapy, and measurement in music therapy and rehabilitation, primarily with minimally responsive populations. She is widely published in rehabilitation and music therapy peer reviewed forums and is a current Guest Associate Editor with Frontiers in Psychology/Frontiers in Human Neuroscience, research topic "Music and Disorders of Consciousness."

Concetta Tomaino, DA, LCAT, MT-BC, is the Executive Director and co-founder of the Institute for Music and Neurologic Function and Senior Vice President for Music Therapy at CenterLight Health System (formerly Beth Abraham Family of Health Services), where she has worked since 1980. Dr. Tomaino is internationally known for her research in the clinical applications of music and neurologic rehabilitation. Her work has been featured in media and print. Dr. Tomaino is Past-President of the American Association for Music Therapy and founding board member for the International Association for Music and Medicine. She is the recipient of numerous prestigious awards and recognitions including the Award of Accomplishment from Music Therapists for Peace at the United Nations, a Touchstone Award from "Women in Music," the Music has Power Award from the IMNF, the Zella Bronfman Butler Award, and the 2010 Professional Practice Award from the American Music Therapy Association. She is on the faculty of the Albert Einstein College of Medicine, the ATTP II team of the National Parkinson's Foundation, the New York State Geriatric Education Consortium, and Lehman College, CUNY.

Joke Bradt, PhD, MT-BC, is Associate Professor in the Creative Arts Therapies Department at Drexel University and a board-certified music therapist. Her research has focused on the use of

music therapy interventions for chronic illness and chronic conditions. She recently completed an NIH-funded study on the use of vocal music therapy on chronic pain management. She has presented her work extensively at national and international conferences, and has authored and co-authored several music therapy articles and book chapters. She is the lead author of six Cochrane Systematic Reviews on the use of music interventions with medical patients as well as one on dance/movement therapy for cancer patients. Dr. Bradt has also published several research methodology articles and book chapter. Dr. Bradt is co- Editor in Chief of the *Nordic Journal of Music Therapy*.

Deanna Hanson-Abromeit, PhD, MT-BC, is an Assistant Professor at the University of Kansas. She also served on the faculty at the University of Missouri-Kansas City Conservatory of Music and Dance for eight years and was selected by Conservatory faculty as the 2012 recipient of the Muriel McBrien Kauffman Excellence in Teaching Award. She is the co-editor of two monographs on music therapy in the hospital setting and has authored multiple book chapters and peer-reviewed articles. She was selected as the 2010 and 2013 recipient of the AMTA Midwestern Region Scholarly Activity Award and serves in a variety of capacities for AMTA. Her area of clinical and research focus is on preventive music-based interventions with infants who are neurodevelopmentally at-risk, particularly infants who are premature or living in poverty.

Christine Neugebauer, MS, LPC, MT-BC, is the administrator of Child & Family Integrative Care at Covenant Children's Hospital in Lubbock, TX where she is developing an Arts in Medicine program and manages the child life department. She is also a Clinical Instructor in the Department of Pediatrics at Texas Tech University Health Science Center. She has over 20 years experience working in pediatric medical settings as a music therapist clinician, clinical educator, and researcher. She has been an invited speaker both nationally and internationally, has published articles on her work, and was a recipient of the Arthur Flagler Fultz Research Award.

Sarah Thompson, MM, CBIS, MT-BC, is a music therapist and a Certified Brain Injury Specialist. She serves on the Reimbursement Committee as well as the State Task Force in Colorado. Sara owns and manages a private practice in Denver, CO. In 2013, she served on an Advisory Panel for the Division of Workers' Compensation in the State of Colorado and facilitated inclusion of music therapy in the Medical Treatment Guidelines for Traumatic Brain Injury. Her service on that panel contributed to a process where research findings directly impacted guidelines, reimbursement and access to music therapy services.

APPENDIX F: Symposium Attendees

Lynn Adams
Kenneth S. Aigen
Gene Ann Behrens
Felicity Baker
Donna Betts
Joke Bradt
Brian Brandler
Debra S. Burns
John A Carpente
Andrea Marie Cevasco-Trotter
Alicia A. Clair
Jane P. Creagan
Linda K. Demlo
Virginia Darnell Driscoll
Angie K. Elkins
Barbara A. Else
Andrea Farbman
Amy Greenwald Furman
Lisa M. Gallagher
Lori Gooding
Nicole Hahna
Maria Battista Hancock
Suzanne B. Hanser
Deanna Hanson-Abromeit
Tina Haynes
Pamela Hinds
Bryan C. Hunter
Jennifer D. Jones
Clarissa Karlsson
David Knott
Blythe LaGasse
Deforia Lane
Hayoung Lim
Ashley Liotti
Anne W. Lipe
Joanne Loewy
Mary Luehrsen
Wendy Magee
Meganne Masko
Moira McGuire
Anthony N. Meadows
Holly Mentzer
Christine T. Neugebauer
Sierra Norris
Bill O'Brien
Leah Oswanski
Rebecca Preddie
Hanne Mette Ochsner Ridder
Sheri L. Robb
Kim Robertson
Joy S. Schneck
Joshua W. Schrader
Christy Joy Shiloh
Judy Simpson
Sarah E. Thompson
Concetta M. Tomaino
Michael D. Viega
Marete Wester
Barbara L. Wheeler
Annette M. Whitehead-Pleaux
Rebecca Zarate

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Research > Strategic Priority on Research > MTR 2025

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