REPORT

Autism Spectrum Disorder | Survey Study | Outcomes

Strategic Priority on MT and ASD

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Note

National ASD Survey Study

In October 2012, independent researchers Dr. Petra Kern, Music Therapy Consulting, Dr. Nicole Rivera, North Central College, and Alie Chandler, Ossia Music Therapy Services conducted a survey study on clinical practices and training needs of music therapy practitioners serving individuals with Autism Spectrum Disorder (ASD) in collaboration with Marcia Humpal, Chair, Strategic Priority on Music Therapy and ASD.

In this report, we share the survey outcomes with the AMTA Board of Directors. It is our sincere hope that the results will lead to actions such as enhanced information dissemination and advanced professional development opportunities for AMTA members who serve individuals with ASD and their families. The outcomes may also spark discussion on the evidence-based practice level of music therapy.

Executive Summary

Purpose

- to evaluate the current status of music therapy practices for serving clients with ASD, the implementation of national ASD standards and guidelines, the awareness of recent developments, and training needs of music therapists

Method

- Participants: Professional members of AMTA (N=328) working with individuals with ASD

- Study Design: Cross-sectional survey study

- Instrument Design: 45-item online questionnaire accessed through SurveyMonkey®

Results

- Music therapy practices reflect a slightly higher percentage of caseload with ASD; broader age range of clients; trend to serve clients in home and community settings

- Most therapeutic processes align with recommended practices for ASD and incorporate several of the recognized evidence-based practices (e.g., behavioral approach)

- Less understood or recognized are inclusion practices and latest developments in the field of ASD

Demographics of Participants

Gender (327 respondents)	Female 298 (91.1%)	Male 29 (8.9%)					
Age Range (326 respondents)	20-29 105 (32.2%)	30-39 108 (33.1%)	40-49 48 (14.7%)	50-59 46 (14.1%)	60+ 19 (5.8%)		
Ethnicity (325 respondents)	Caucasian 296 (91.1%)	African American/Black 3 (0.9%)	Native American 0 (0%)	Hispanic/Latin 7 (2.2%)	Asian/Asian American 14 (4.3%)	Other 5 (1.5%)	
Degree (321 respondents)	Bachelor's 172 (53.6%)	Master's 136 (42.4%)	Doctoral 13 (4.0%)				
Member Status (321 responses)	MT-BC 283 (88.2%)	ACMT/CMT/RMT 10 (3.1%)	Retired 2 (0.6%)	Inactive 9 (2.8%)	Other 17 (5.3%)		
Region (320 respondents)	Great Lakes 95 (29.7%)	Western 42 (13.1%)	Mid-Atlantic 62 (19.4%)	New England 20 (6.3%)	Southeastern 32 (10.0%)	Mid-western 29 (9.1%)	South-western 28 (8.8%) Other 12 (3.8%)
Major Role (310 respondents)	Practitioner 278 (89.7%)	College/University Educator 16 (5.2%)	Researcher 1 (0.3%)	Administrator 15 (4.8%)			
Years Worked with ASD (310 respondents)	< 1 16 (5.2%)	1-5 107 (34.5%)	6-10 86 (27.7%)	11-19 56 (18.1%)	20-29 24 (7.7%)	30+ 21 (6.8%)	

Table 1. Demographics of AMTA members participating.

➡ The typical participant of this study was a female Caucasian, board certified music therapy practitioner with a Bachelor's degree and 1-5 years of work experience with this population. Most worked in the Great Lakes region.

Professional Practice
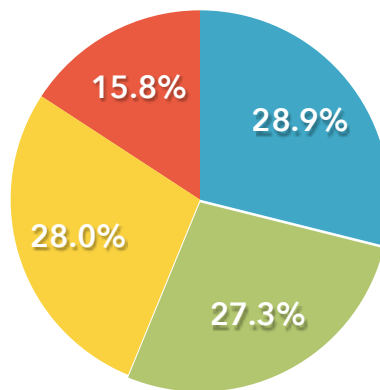
- Less than 25%
- 26-50%
- 51-75%
- 76-100%

Figure 1. Caseload with an ASD diagnosis.

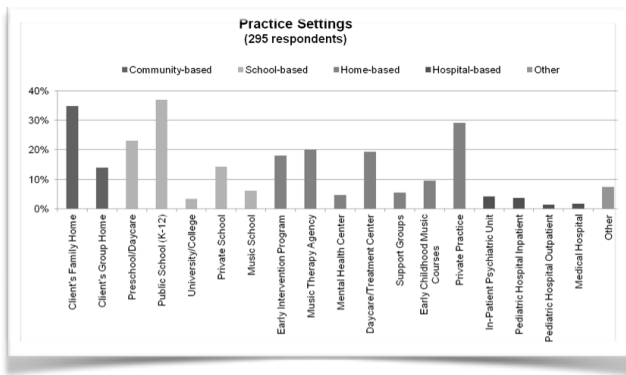➡ Compared to a decade ago, the caseload slightly increased.

Figure 2. Practice settings of music therapy service delivery.

➡ Most music therapists provide services in public schools (K-12), family homes, private practice (decreasing tendency), or in community settings, which partially reflects the principles of practice guidelines for individuals with ASD.
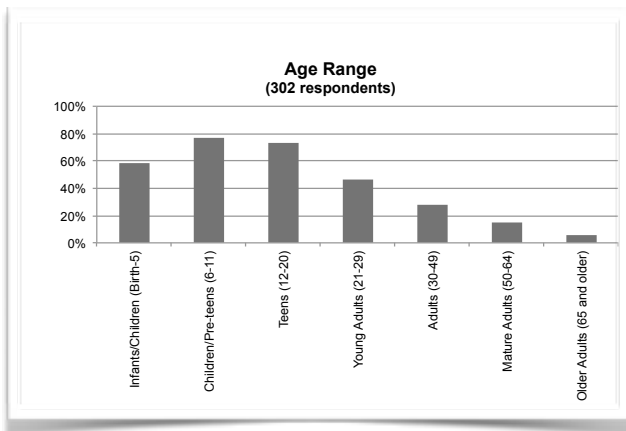

Figure 3. Age range representing clients with ASD with whom music therapists work.

➡ Clients with ASD seems to be shifting slowly to 12-20 years and older; however, music therapists also see more infants and young children compared to previous years – facts that possibly can be attributed to maturing of clients and increased awareness of the impact of early childhood intervention for this population.
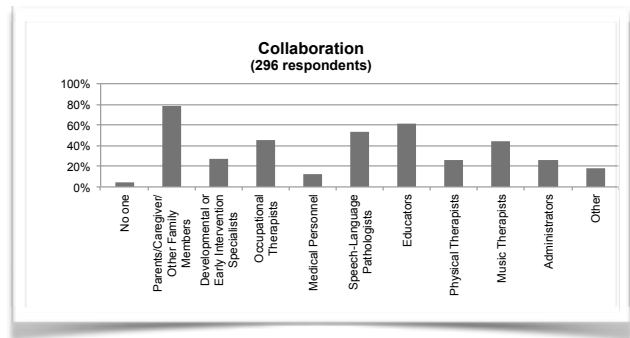

Figure 4. Individuals with whom music therapists collaborate (similar results for consultation).

➡ Music therapists frequently collaborate and consult with parents/caregivers/family members, educators, speech-language pathologists, occupational therapists, and others for treatment planning and implementation. Collaboration and consultation rates seem to be higher than collaborations and consultative services across populations in previous years.
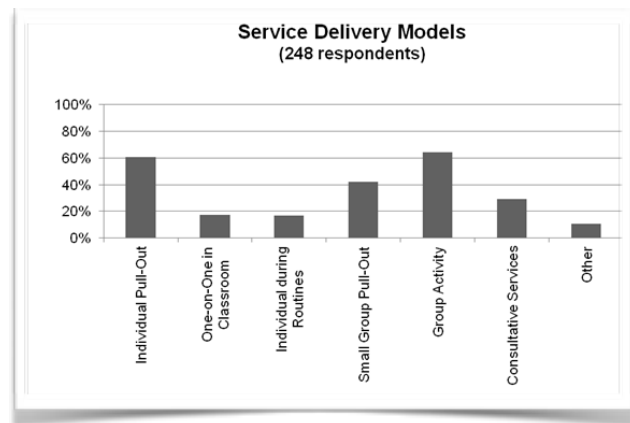

Figure 5. Service Delivery Models.

➡ Within school-based settings, music therapists primarily offer group activities, whereas in other work settings individual sessions are more common. Yet music therapy services are still delivered primarily in a segregated versus inclusive environment.
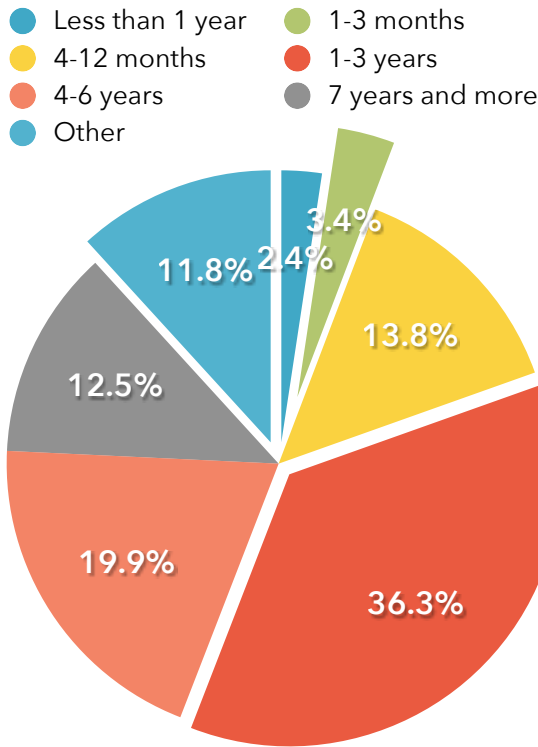
Less than 1 year
4-12 months
4-6 years
Other
1-3 months
1-3 years
7 years and more

Figure 6. Average duration of music therapy services.

➡ Most music therapy sessions take 30 minutes, typically provided once per week with an average of 1-3 year service duration.
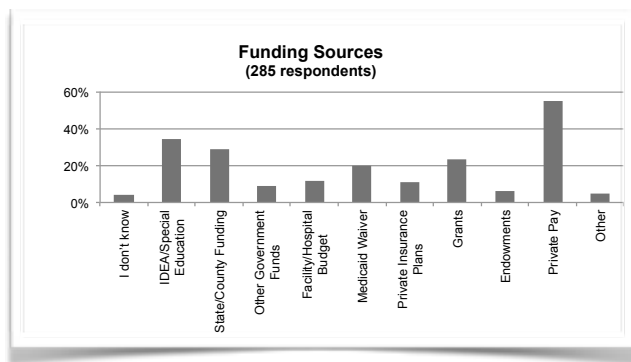

Figure 7. Funding sources of music therapy services.

➡ Music therapy services mainly are funded by private pay, IDEA/Special Education State/County Funding, and grants.
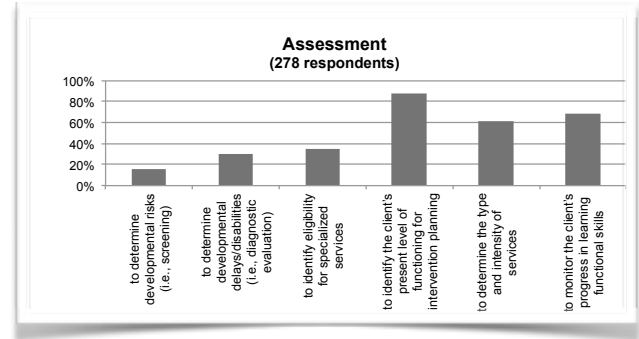
Therapeutic Process

Figure 8. Reasons why music therapists assess individuals with ASD.

➡ Music therapists demonstrate a strong assessment practice, which is in compliance with recommended practices for ASD. Yet, there is no known validated music therapy assessment tool specific to ASD. Therefore, music therapists apply mainly self-created assessment tools and music-therapy or work-space specific assessment tools, while several new and specific tools are emerging.
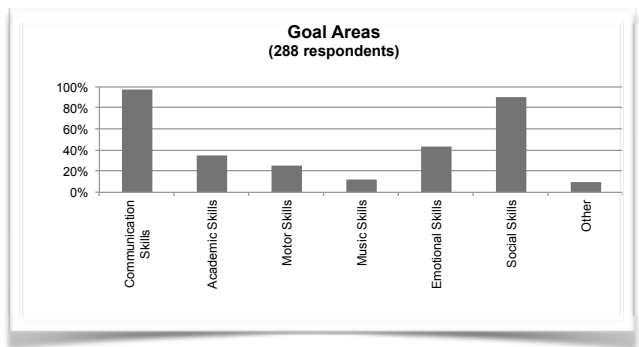

Figure 9. Goal areas targeted in music therapy sessions with individuals with ASD.

➡ The top three goal areas targeted are communication skills, social skills, and emotional skills (almost not addressed a decade ago). Music therapy clients typically achieve intervention goals within 4-6 months.
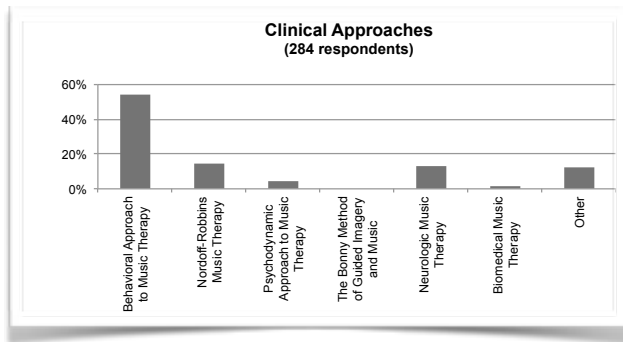
Clinical Approaches
(284 respondents)

Figure 10. Clinical approach applied by music therapists when working with individuals with ASD.

➤ According to research-based practice, most music therapists apply a behavioral approach to music therapy, which is also reflected in the structuring of sessions (i.e moderately to highly structured). Fewer music therapists reported using Nordoff-Robbins Music Therapy or Neurologic Music Therapy, while using computer-based music activities is increasing.
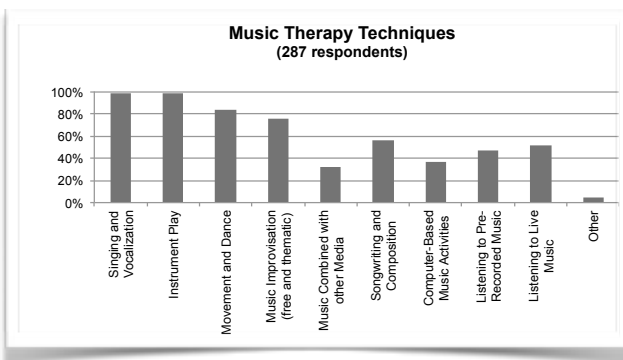
Music Therapy Techniques
(287 respondents)

Figure 11. Music therapy techniques used by music therapists when working with individuals with ASD.

➤ Music therapy techniques utilized to achieve therapeutic goals are mostly singing and vocalization, instrument play, movement and dance, and free and thematic improvisation.

Evidence-Based Practice

Identified EBP		N	%
Antecedence Package	Prompting	255	90.1
	Antecedence-Based Interventions	79	27.9
	Time Delay	121	42.8
Behavior Package	Reinforcement	239	84.5
	Task Analysis	115	40.6
	Discrete Trial Training	53	18.7
	Functional Behavior Analysis	82	29.0
	Functional Communication Training	74	26.1
	Response Interruption/Redirection	123	43.5
	Differential Reinforcement	64	22.6
Comprehensive Behavioral	Early Childhood Denver Model	11	3.9
Treatment for Young Children with ASD	Treatment and Education of Autistic and Communication Handicapped Children [TEACCH]	41	14.5
	Learning Experiences of Autistic Programs for Preschoolers and Their Parents [LEAP]	7	2.5
	Lovaas	12	4.2
Joint Attention Intervention	(i.e., pointing to objects, showing items to another, following eye gaze)	230	81.3
Modeling	(e.g., Video Modeling)	89	31.4
Naturalistic Teaching	Incidental Teaching	75	26.5
Strategies	Milieu Teaching	34	12.0
	Embedded Teaching	52	18.4
Peer Training Package	Peer Networks	27	9.5
	Integrated Play Groups™	32	11.3
	Peer-Mediated Social Interaction	52	18.4
Pivotal Response Treatment	Expansion of Natural Language Paradigm	27	9.5
Schedules in	Words	191	67.5
Form of	Pictures	230	81.3
	Photographs	129	45.6
	Work Stations	17	6.0
Self-Management	Checklists	100	35.3
	Wrist Counters	2	0.7
	Visual Prompts	180	63.6
	Tokens	82	29.0
Story-Based Intervention Package	Social Stories™	150	53.0

Table 2. Evidence-based practices incorporated in music therapy interventions for individuals with ASD.

➤ Participants applied many of the eleven identified evidence-based practices. Most incorporated prompting, reinforcement, joint attention intervention, and picture schedules in their music therapy sessions.

➤ Music therapists implement all guiding principles of practices for ASD on a very high level, except for serving clients in natural and inclusive environments.

➤ More than half of the music therapists received training in some of the identified evidence-based practices, which was obtained mainly by education programs outside the field of music therapy. Music therapists indicated receiving training in the principles of practices in a similar ways.
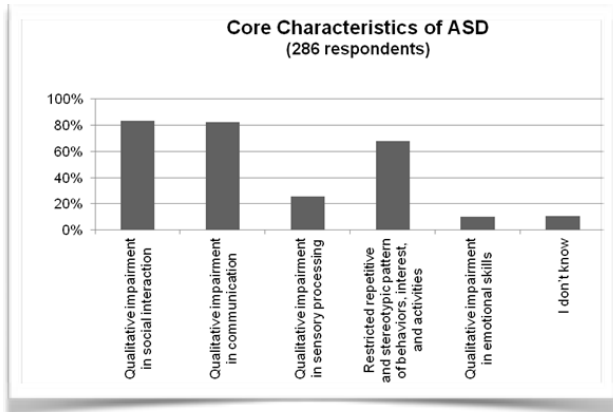
About ASD

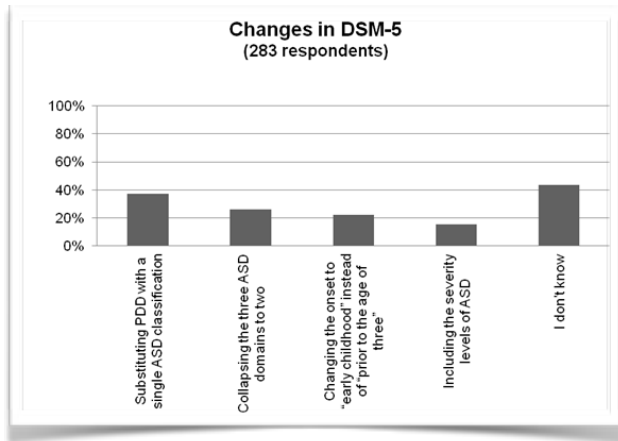*Figure 12.* Identification of core characteristics of ASD according to DSM-IV-TR™.

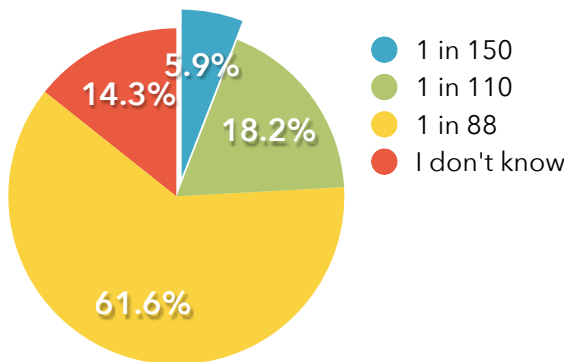*Figure 13.* Identification of major shifts in diagnosis of ASD in the new DSM-5™.

Figure 14. Identification of current prevalence rate of ASD in the U.S.
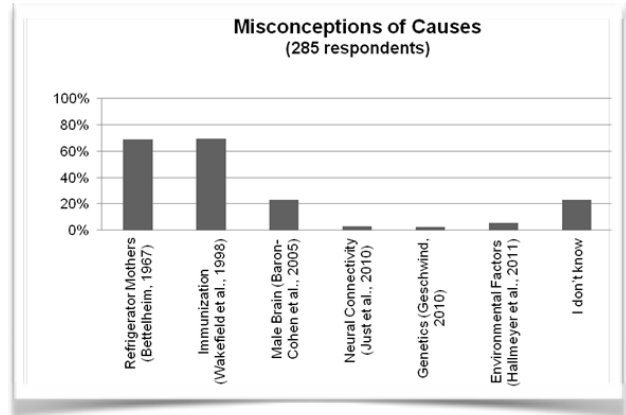

Figure 15. Proven misconceptions of theories about the causes of ASD.

- Established Practice
- Emerging Practice
- Unestablished Practice
- Ineffective/Harmful Practice
- I don't know

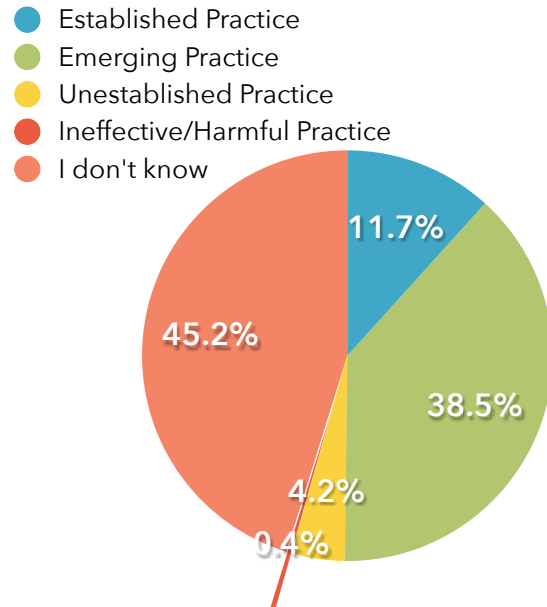*Figure 16.* Evidence-based practice level of music therapy.

➡ Most music therapists accurately identified the core characteristics of ASD, the current prevalence rate, theories about the causes, and the key elements and impact of EBP. They were less familiar with more recent developments such as the proposed shifts in diagnosis of ASD as well as the "emerging practice" level of the music therapy profession.

Recommendations

→ Respond to training needs indicated by AMTA members (i.e., implementation of evidence-based practice and on a daily basis, behavioral, sensory, and neurologic approaches to ASD, ways to delivery services for adolescents and young adults with ASD, and recent research outcomes related to ASD and music therapy.

→ Increase professional development structure (i.e., offer specific training units, mentoring, and improved dissemination of research outcomes).

→ Empower AMTA Strategic Priority on Music Therapy and ASD to implement recommendations in collaboration with various stakeholders.

> We think music therapists are well immersed in serving clients with ASD, but would benefit from advanced online training and improved information dissemination to stay current with the rapidly changing aspects pertinent to this population.

Note

Summary statements are based on outcomes and comparison to previous studies as well as ASD guidelines and standards (i.e., Chandler, 2004; National Autism Center, 2009; National Research Council, 2001; Register, 2002).

Chandler, S. A. (2004). A *survey: Contemporary music therapy practice with individuals diagnosed on the autism spectrum*. Unpublished Master's thesis, University of Western Michigan.

National Autism Center (2009). *National Standards Project findings and conclusions: Addressing the need for evidence-based practice guidelines for Autism Spectrum Disorders*. Randolph, MA: NAC.

National Research Council (2001). *Educating children with autism. Committee on educational interventions for children with autism*. Washington, DC: National Academy Press.

Register, D. (2002). Collaboration and consultation: A survey of board certified music therapists. *Journal of Music Therapy, 39*(4), 305-321.

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