

*Full-Length Article***Care, compassion, & controversy: Supporting children in a Covid-19 vaccine pod through music therapy & child life****John Mondanaro¹ & Jessica Sturgeon²**¹Director, Expressive Arts Therapy, Brookdale Department of Geriatrics and Palliative Medicine, Icahn School of Medicine and Mount Sinai Hospital, New York, NY, United States²Accentcare Hospice and Palliative Care, Middlebury, CT, United States**Abstract**

The Covid-19 pandemic has had a trajectory punctuated by controversy, from understanding the virus itself to the development of therapeutics and a vaccine. The offering of vaccination to children through a destination Covid-19 vaccine pod foregrounded the need for procedural support within a psychosocial reality of children and families navigating the pandemic. Children receiving the Covid-19 vaccine benefitted from an integrative approach synthesizing music therapy and child life services into interdisciplinary, and at times transdisciplinary care delivery that proved essential for not only the child, but for personal caregivers, and very often the nursing staff administering the vaccine itself. This article presents the praxis of psychoeducational interventions, psychotherapeutic support, and procedural support including both pre- and post-procedural interventions to support children receiving the Covid-19 vaccine,

Keywords: *music therapy; child life; Covid-19 vaccine; procedural support*Multilingual abstract | mmd.iammonline.com**Introduction**

March 10, 2022, two years from the onset of the first Covid-19 lockdown, the pediatric Covid-19 vaccine pod at Mount Sinai Beth Israel (MSBI) victoriously marked its completed mission: the successful rollout of vaccines to over 900 New York City children in just four months. This brief period stands as an astonishing testament to the unique zeitgeist born of political tension and public skepticism about the pandemic, the development and approval of a vaccine, and the hospital's rich history in pediatric care. Pediatric care at MSBI has been steeped in a family-centered philosophy valuing the psychosocial care of children informed by the integration of music therapy and child life services. This article lends scope to the circumstances that were unique to this pediatric Covid-19 vaccine pod, and its offering to a community divided by ambivalence.

From the onset of the pandemic, its effect on pediatric populations has been one of discernable ambiguity. Vulnerability of the elderly and the chronically ill, warranting

primary consideration naturally precluded pediatric patients, but the indiscriminate reach of Covid-19 told another story.[1,2,3] Understanding the far-reaching impact of Covid-19 to the young was of increasing importance in the quest to better understand the etiology of the virus, its spread and imminent mutations, and the vaccine rollout. [4-9] As the vaccine was made available to children and adolescents, scrutiny and mistrust, residual from the initial deployment of the vaccine was seen.

The breadth of literature on both procedural and surgical support spans age and diagnosis; from the use of music therapy to address pain,[10-17] to specific procedures ubiquitous to medical contexts. [18-27] Venipuncture with which anxiety and needle-phobia prevail [28-38] held poignance in the Covid-19 vaccine pod. Buttressed with literature on child life in the psychosocial care of hospitalized children, [39] this body of research renders a convincing case for the presence of one or both disciplines in a vaccination pod. While effective individually, the synthesis of the two professions raises the potential for optimizing the therapeutic outcomes in general and specialized pediatric settings. [23,24,39-42] But what is markedly striking about a destination vaccine pod, is that at no other time in recent history has the state of public health demanded a specific accommodation that such a pod could offer more than during this pandemic. Notably, the American Music Therapy Association developed a special Covid-19 task force to raise attention to the need and opportunity to serve

PRODUCTION NOTES: Address correspondence to:

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children receiving the vaccine. [31] Despite the variance in public opinion, hordes of children brought to the vaccine pod by parents who were vaccinated themselves, reflected the increasing sentiment that the vaccine was safe, necessary, and the right thing to do.

The ubiquity of vaccine updates and age specific qualifiers across the media rendered an open-ended delivery of psychoeducation about the benefits, challenges, and ethical landscape surrounding the roll-out. [4-9] The provision of the vaccine to children once approved, resulted in several layers of need that were meetable and treatable through the integration of music therapy and child life in vacillation between interdisciplinary and transdisciplinary care delivery.

Music Therapy and Child Life Integration in the Service of a Covid-19 Vaccine Pod

The first author began training board-certified music therapists seeking dual certification in child life in 2008, following his tenure at a well-known medical center in the New York tri-state area.[24,39,40,42] Dual certification proved to be a natural synthesis of the tenets of music therapy within a context of child life philosophy valuing the inclusive role of the child and the over-arching family system. Imparting the potential of this integrated approach at a fundamental level required a deconstruction of the most basic areas of needs assessment: *what is the child's developmental understanding? how is the child coping?*, and *how is the child expressing and engaging in the environment?* The interventions to address each area respectively are psychoeducation, procedural support, and psychotherapeutic support. Each area of focused intervention is aimed at supporting a child's mastery of illness, treatment, and context. This *Music Therapy/Child Life Training Tool* is included as an Appendix to introduce the mechanism that became an ongoing source of supervision and training during the second author's internship, which had aligned with the Covid-19 vaccine pod's trajectory.

In the case of children receiving the covid vaccine, this comprehensive approach to needs assessment was essential. For example, the clinician was able to assess a child's presentation upon arrival, noting signals of anxiety such as hypervigilance to proximity to caregiver, rapid social referencing across staff members, widened eyes, grimacing, and/or overt expression of worry. Observation of a child's engagement with the environment provided additional insight into possible coping strategies that could be utilized when the vaccine was being administered. Based on the assessment, appropriate procedural support could be provided seamlessly within an interdisciplinary culture of family centered care. This level of assessment was not only implicated for the child, but also for personal caregivers, and very often the nursing staff

administering the vaccine itself. For the latter group, efficiency, and time constraints especially during heavily scheduled windows could at times exacerbate anxiety for everyone. The praxis of psychoeducational interventions, psychotherapeutic support, and procedural support including both pre- and post-procedural interventions follows.

Caring for Children

The role of administering procedural support during the vaccination process proved vital from both music therapy and child life perspectives. The literature has supported the use of several techniques to provide re-engagement, re-direction, and reinforcement during procedures typically done in medical settings, including pediatric venipuncture. In a world where mass-vaccination came into play however, there were suddenly added stressors that affected the child, parent, and the healthcare staff. This included the concern about the psychological welfare of children undergoing the vaccinations. [39,47] In a politically charged environment, a child's potential exposure to "horror stories" at school and in the community was immanent given the highly publicized nature of the vaccine. Further compounding the emotionally charged environment was the pure stress of administering vaccines back-to-back with as many as 60 children within a 3-hour timespan. Several techniques proved efficacious in promoting a comfortable and safe environment to offset these factors.

Re-engagement, the act of therapeutically engaging the brain in a manner alternative to the primary stimulus, has proven to be an effective strategy in procedural support. A child life specialist often utilizes techniques that focus on tactile and visual re-engagement by introducing an alternative stimulus into the child's sensory field. In the Covid-19 vaccine pod, re-engagement using vibro-tactile stimulation on extremities was offered to children prior to the procedure using a device in the shape of a ladybug that could be either held or attached to the child's arm. Often, the vibrating device would be placed directly below the venipuncture site. This would lessen the sensation of the puncture itself by refocusing the child to the alternative stimulation being offered. [47]

Music therapy practiced with a therapeutic focus on inclusion of the child and family in a process valuing authenticity, accurate language, agency, control, engagement, and feedback from the child contributed to the culture of the Covid-19 vaccine pod. [23,39, 47-50] Music therapy can provide additional methods of re-engagement through auditory stimulation that is individualized to each child's needs. Environmental music therapy (EMT) was utilized to neutralize the perceived sterility of a vaccine pod through the provision of music that was improvised to meet and modulate the sound environment to desirable levels.[46] A common technique utilized within the Covid-19 vaccine pod outside of

EMT, was the engagement of the child and family system through music entrainment. The entrainment, or matching, to the level of the energy being exhibited by the child in addition to physiological factors including respiration and movement with tension/release, promoted relaxation and grounding for the duration of the experience. [23,24,44,48,49]

Interdisciplinary support rendered through collaboration of music therapy and child life ensued from the professions' shared value of autonomy through choice-making. The child's choice of interventions across both child life and music therapy offerings, provided children with a sense of control during stress-inducing environments. Appropriate choices offered throughout the process included what color band-aid could be provided, what arm the vaccination would be administered to, and which method of re-engagement would be most effective for and preferred by the child. Providing autonomy whenever possible served to de-emphasize those instances when choice was contraindicated due to safety concerns such as excessive movement or combativeness.

Regardless of the clinician present at the time of vaccination, and certainly with transdisciplinary care, a fundamental step in supporting a child through the venipuncture process was consistent and repetitive positive reinforcement. Reinforcing each step of the vaccination process, allowed space for reflection on successes while also re-orienting the child to the here-and-now in a non-threatening manner despite the potential anxiety they were experiencing. Positive reinforcement was most often provided through verbal praise, and reflection on past successes. This approach was especially impactful to children returning for their second dose.

Finally, once the vaccine had been administered, an additional "prize" would be offered by both nursing staff and the supporting clinician. This ritual served to ground and re-orient the child back to present and provided an additional means of autonomy reinforcement through the choice of color or type of small prize. Simultaneously provided a necessary and positive interaction between the child and the administering nurse. The over-arching goal was to promote a sense of mastery in the child and to reflect back each positive coping strategy, behavioral response, and success that was observed during the vaccination process. Psychoeducational review of the successful strategies gleaned from the Covid-19 vaccine pod experience could potentially ensure better coping with venipuncture procedures in the future.

Following the procedure, appropriate steps were taken to support reconstitution [23,42,48,49] and a return to the child's baseline while promote a positive experience from beginning to end. To this end, a consistent practice included a "parade" of nurses, music therapy, and child life to celebrate their bravery and mastery during the vaccination process.

Caring for Families

The parent or caregiver can often be integrated into the care of the child to promote safety, security, and assistance during a potential fear-inducing procedure. Although there were occasional circumstances where assessment of a caregiver revealed discomfort or a diminished capacity to support the child throughout the experience, such instances rendered invaluable opportunities to provide both support and education. More often than not, the caregiver was highlighted as a comfort-figure and supportive presence to the child. Positioning for optimal comfort became a point of education as they were encouraged to provide a "bear hug" with the child placed on their lap. This position of comfort provided containment to promote increased physical safety for the child and staff in addition to increased emotional safety. [19,23,24,39]

Additionally, providing supportive presence and validation to the parent/caregiver was inherent in the process of vaccination. Expectedly, caregivers presented on a spectrum of emotional availability, expressivity, and understanding, which was assessed on an individual basis. One of the most effective and important aspects of supporting children is to further assess and support the caregiver to provide them with the tools that best meet both their needs and those of their child. Psychoeducation focused on the best practice for providing emotional support to the child through developmentally appropriate language, providing positive reinforcement in response to completed tasks, and physical support through positions of comfort such as the aforementioned "bear hug" technique.

In the Covid-19 vaccine pod, one of the most foundational tenets of psychoeducation with caregivers was the consistent introduction and reinforcement of accurate and fitting language that would affirm the process, validate the child, and provide a foundation of trust and safety for the child. Modeling an effective communication style in the hospital can potentially transfer to better communicating at home. The most frequent inaccuracy presented by caregivers was the phrase "it won't hurt". Introducing the expectation of a painless experience, provides a false sense of security that when disproved, creates an inherent mistrust of the caregiver that could impact other situations for the child. Rather than negating or denying the possibility of pain, caregivers were encouraged to instead listen, validate, and respond. If the child displayed fear, it was encouraged and modeled by the clinician to have a dialogue about the fear itself rather than introducing any potential causes or contributors to the feeling. If a child indicated fear of the vaccine, the focus then moved to validating that fear and finding a method of coping and re-engagement that could be either facilitated by the clinician or caregiver. Often, there would be a dialogue where the caregiver or child could identify

previous successes and positive outcomes of other fear-related memories.

Caring for Staff

For many, the Covid-19 vaccine pod raised awareness of dynamics driven by power, privilege, culture, and certainly those specific to family systems already under the stress of the pandemic. Given the history of how the pandemic and vaccine development had been managed in the United States, such dynamics were anticipated. In addition, however, there emerged an unlikely area of need expressed by nursing and medical staff attending to the Covid-19 vaccination pod either by voluntary choice or by reassignment. Caring-for-the-caregiver techniques long-practiced within the Louis Armstrong Department of Music Therapy of the Mount Sinai Health System, has driven the on-going recognition and meeting of staff needs as they have arisen.[52-54] Mentoring and modeling developmentally focused care as it unfolded in real time, and decompressing through retrospection as part of the pod's closing ritual each day, became consistent features of the integrative care that was provided.

Conclusion

Music therapy and child life integration as a conduit for procedural support proved to be both effective and efficient at meeting the needs of children receiving their Covid-19 vaccine. Interdisciplinary collaboration, and the potential for transdisciplinary care to occur when possible ensured a consistent delivery of quality care. The integration of psychoeducation with psychotherapeutic goals through a range of expressive opportunities was an individualized approach made possible when traditional siloed thinking was transcended. For children and families negotiating social stigma and ambivalence about the Covid-19 vaccine, there was an inherent need for support and validation that they were in the right place. Integrative philosophy ensured that individualized support immediately upon arrival to the Covid-19 vaccine pod could be sustained through the entire experience of receiving the vaccine.

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Appendix

MUSIC THERAPY/CHILD LIFE TRAINING TOOL © John Mondanaro 2008

AREA OF ASSESSMENT	CLINICAL INTERVENTION
<u>Patient's understanding of illness</u> <i>Developmentally on track</i> <i>Delayed</i> <i>Regressed</i> <i>Prior experience</i> <i>Demonstrates mastery</i>	<u>Psychoeducation/Medical Play</u> <i>Begin with what child does know</i> <i>Explain sequence of events</i> <i>Explain sensory aspects</i> <i>Demonstration of procedure on dolls/manipulatives</i>
<u>Patient Coping</u> <i>Compliant or non-compliant</i> <i>Combative</i> <i>Passive or active</i> <i>Engaged or withdrawn</i>	<u>Procedural Support</u> <i>Visual engagement (art, crafts, videos)</i> <i>Auditory engagement (music engagement, entrainment, soundscape)</i> <i>Tactile engagement (drumming, strumming, vibration)</i> <i>Olfactory (aroma therapy)</i> <i>Taste (flavored lip balm, snacks of permissible)</i>
<u>Patient Expression of Feelings</u> <i>Demonstrates relatedness</i> <i>Articulates self-narrative</i> <i>Engages with staff</i> <i>Asks questions</i> <i>Identifies and asserts needs</i>	<u>Psychotherapeutic Support</u> <i>Assess for themes of loss, separation, isolation, change, transition, betrayal, self-blame</i> <i>Facilitate forums for verbal and nonverbal expression (art, music, expressive play, etc.)</i> <i>Identity affirmation</i>