AIM: To compare the effectiveness of an intensive-intermittent vs. standard spaced protocolized music therapy intervention on supporting developmental milestone acquisition of infants >44 weeks post-menstrual age (PMA) hospitalized in a Neonatal Intensive Care Unit (NICU).

METHOD: This was a comparative effectiveness study of infants 44-66 weeks PMA with a projected NICU stay of at least one month from recruitment. Infants were randomized to one of two treatment groups: traditional therapy (2x/week) and intermittent-intensive (4x/week, off, 4x/week, off). Both groups received the same number of sessions over a 4-week period. Sessions at the start and end of the treatment period were video recorded. Two masked researchers reviewed and coded videos. Milestones used for video recording were adapted from the Developmental Assessment of Young Children.

RESULTS: 24 infants participated, with groups matched for birth age, PMA at start of study, race, IVH severity, and respiratory support. Total and motor composite scores were higher post-intervention (Cohen's d =0.71 and 0.97, both p<0.01), with the same degree of skill acquisition found for both intervention groups. CONCLUSION: A developmental music therapy protocol supports developmental skills acquisition of preterm infants in a NICU. Similar outcomes for both groups provide therapists with varying treatment dosing options to best support their patients. This article is protected by copyright. All rights reserved.
per un periodo di 4 settimane. Le sessioni all’inizio e alla fine del periodo di trattamento sono state videoregistrate. Due ricercatori che erano ciechi alla condizione sperimentale hanno rivisto e codificato i video. Le tappe di sviluppo utilizzate per le registrazioni video sono state adattate dalla “Valutazione dello Sviluppo dei Bambini Piccoli”. Hanno partecipato 24 bambini. I gruppi erano bilanciati per età di nascita, PMA all’inizio dello studio, razza, gravità dell’emorragia intraventricolare (IVH) e supporto respiratorio. I punteggi totali e motori composti sono stati più alti dopo l’intervento (d di Cohen= 0.71 e 0.97, entrambi con p<0.01) e per per entrambi i gruppi di intervento è stato trovato lo stesso grado di acquisizione di abilità. Gli Autori concludono che un protocollo di musicoterapia evolutiva supporta l’acquisizione di abilità di sviluppo di bambini nati post-termine in reparto di terapia intensiva neonatale. Risultati simili per entrambi i gruppi offrono ai terapeuti varie opzioni di dosaggio del trattamento per supportare al meglio i loro pazienti.

Eur J Neurosci 2018 Oct 29
Rhythmic auditory cues shape neural network recruitment in Parkinson’s disease during repetitive motor behavior

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It is well established clinically that rhythmic auditory cues can improve gait and other motor behaviors in Parkinson's disease (PD) and other disorders. However, the neural systems underlying this therapeutic effect are largely unknown. To investigate this question we scanned people with PD and age-matched healthy controls using functional magnetic resonance imaging (fMRI). All subjects performed a rhythmic motor behavior (right hand finger tapping) with and without simultaneous auditory rhythmic cues at two different speeds (1 Hz and 4 Hz). We used spatial independent component analysis (ICA) and regression to identify task-related functional connectivity networks and assessed differences between groups in intra- and inter-network connectivity. Overall, the control group showed greater intra-network connectivity in perceptual and motor related networks during motor tapping both with and without rhythmic cues. The PD group showed greater inter-network connectivity between the auditory network and the executive control network, and between the executive control network and the motor/cerebellar network associated with the motor task performance. We interpret our results as indicating that the temporal rhythmic auditory information may assist compensatory mechanisms through network-level effects, reflected in increased interaction between auditory and executive networks that in turn modulate activity in cortico-cerebellar networks.

È ben dimostrato clinicamente che gli stimoli udittivi ritmici possono migliorare la marcia e altri comportamenti motori nel morbo di Parkinson e in altri disturbi. Tuttavia i sistemi neurali alla base di questo effetto terapeutico sono in gran parte sconosciuti. Al fine di indagare tale questione, i Ricercatori hanno esaminato persone affette da Parkinson e soggetti di controllo sani appaiati per età utilizzando la risonanza magnetica funzionale (fMRI). Tutti i soggetti hanno eseguito un comportamento motorio (tapping con le dita della mano destra), con e senza la guida di stimoli udittivi ritmici simultanei a due differenti velocità (1Hz e 4Hz). I Ricercatori hanno utilizzato l’analisi della componente indipendente (ICA) spaziale e la regressione per identificare le reti di connettività funzionale legate alle attività, e hanno valutato le differenze tra i gruppi nella connettività intra- e inter-rete. In generale il gruppo di controllo ha mostrato una maggior connettività intra-rete nelle reti percettive e motorie mentre eseguivano il tapping con le dita, con e senza stimoli ritmici. Il gruppo dei soggetti affetti da Parkinson ha mostrato una inter-connettività maggiore tra la rete uditiva e quella del controllo esecutivo, e tra quest’ultima e la rete motorio/cerebellare associata con la prestazione nel
compito motorio. Gli Autori hanno interpretato tali risultati come indicatori del fatto che le informazioni uditive ritmiche temporali possono aiutare meccanismi compensatori attraverso effetti a livello di rete, che si riflettono in interazioni aumentate tra le reti uditive ed esecutiva, che a loro volta modulano l’attività nei circuiti cortico-cerebellari.

**Psychol Music** 2018 Jul;46(4):568-587

“Being a bully isn’t very cool…”: Rap & Sing Music Therapy for enhanced emotional self-regulation in an adolescent school setting - a randomized controlled trial

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Music as an effective self-regulative tool for emotions and behavioural adaptation for adolescents might enhance emotion-related skills when applied as a therapeutic school intervention. This study investigated Rap & Sing Music Therapy in a school-based programme, to support self-regulative abilities for well-being. One-hundred-and-ninety adolescents in grade 8 of a public school in the Netherlands were randomly assigned to an experimental group involving Rap & Sing Music Therapy or a control group. Both interventions were applied to six classes once a week during four months. Measurements at baseline and again after four months provided outcome data of adolescents' psychological well-being, self-description, self-esteem and emotion regulation. Significant differences between groups on the SDQ teacher test indicated a stabilized Rap & Sing MusicTherapy group, as opposed to increased problems in the control group ($p = .001$; $\eta_p^2 = .132$). Total problem scores of all tests indicated significant improvements in the Rap & Sing Music Therapy group. The RCT results imply overall benefits of Rap & Sing Music Therapy in a school setting. There were improved effects on all measures - as they are in line with school interventions of motivational engagement in behavioural, emotional and social themes - a promising result.

**J Music Ther** 2018 Oct 3

A knowledge framework for the philosophical underpinnings of research: implications for music therapy

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Current music therapy studies suggest great diversity and complexity in research approaches. Authors note the importance of increased clarity in many facets of research reporting. Some authors have also encouraged increased understanding and reporting of the philosophical underpinnings of knowledge generation in research. However, like other social science fields, we appear to have struggled to provide clear frameworks that can address such diverse and complex approaches to research. In this article, I offer one way to resolve such struggles by presenting a re-envisioned version of Michael Crotty's knowledge framework. I seek to meet this purpose through the following objectives: (a) discuss philosophy and its role in research; (b) detail challenges related to understanding and reporting epistemological underpinnings; and (c) present a modified version of Crotty's knowledge framework to promote understanding and reporting, including visuals, brief examples, and resources. I also re-envision the framework to address potential challenges to typologies and to maintain the spirit of Michael Crotty's work. Modifications promote the dynamic and interactive relationship between and within epistemological positions, theoretical perspectives, methodologies, and methods, while also integrating surrounding factors: research question, researcher, context, and participant. I dialogue with related literature on knowledge generation, show how some recent music therapy research engages with the knowledge framework, discuss methodologies and approaches that may not align with the knowledge framework, offer resources for further reference and learning, and describe implications for researchers, research consumers, and the ongoing body of knowledge.

Gli attuali studi sulla musicoterapia suggeriscono una grande complessità e diversità negli approcci di ricerca. Gli autori sottolineano l'importanza di una maggior chiarezza in molti aspetti del riportare le ricerche. Alcuni autori hanno inoltre incoraggiato una maggior comprensione e segnalazione delle basi filosofiche della generazione della conoscenza nella ricerca. Tuttavia, come in altri campi delle scienze sociali, sembra che i ricercatori abbiano faticato nel fornire quarti chiari per affrontare approcci così diversi e complessi. Nel presente studio l'Autore offre un modo per risolvere tali difficoltà presentando una versione rivisitata del quadro di conoscenze di Michael Crotty. L'Autore ha cercato di raggiungere tale proposito attraverso i seguenti obiettivi: (a) discutere sulla filosofia e sul suo ruolo nella ricerca, (b) dettagliare le sfide relative alla comprensione e alla segnalazione delle basi epistemologiche, (c) presentare una versione modificata del quadro di conoscenze di Crotty per promuovere la comprensione e il resoconto, includendo immagini, brevi esempi e risorse. L'autore ha inoltre riscritto la struttura per affrontare potenziali sfide alle tipologie e per mantenere lo spirito del lavoro di Crotty. Le modifiche hanno promosso la relazione dinamica e interattiva tra e all'interno di posizioni epistemologiche, prospettive teoriche, metodologie e metodi, integrando anche fattori circostanti: domande della ricerca, ricercatori, contesto e partecipanti. L'Autore ha dialogato con la letteratura correlata sulla generazione della conoscenza, ha mostrato come alcune recenti ricerche sulla terapia musicale si dedichino al quadro delle conoscenze, ha offerto risorse per ulteriori riferimenti e apprendimento, e ha descritto le implicazioni per i ricercatori e per coloro che utilizzano la ricerca.

The Pierfranco and Luisa Mariani Foundation
Since its beginnings in 1985, the Mariani Foundation has established itself as a leading organization in the field of pediatric neurology by organizing a variety of advanced courses, providing research grants, and supporting specialized care. The Foundation works in close cooperation with major public healthcare institutions, complementing their scientific programs and other activities. In 2009 it became the first private entity in Italy to join the founding members of the Neurologic Institute “Carlo Besta” in Milan. In addition to its services, the Foundation aims, through its continuing medical education courses and its publishing program, to transmit the latest discoveries in the field of pediatric neurology so that they can be applied most effectively in treating or mitigating a large number of pediatric neurologic disorders.

In 2000, the Mariani Foundation has added a new and important dimension to its activities: fostering the study of the multiple links between the neurosciences and music, including music education and early intervention. The results of this commitment are shown first and foremost in "The Neurosciences and Music" conferences, held in Venice (2002), Leipzig (2005), Montreal (2008), Edinburgh (2011), and Dijon (2014). The last congress was held in June 2017 in Boston, in partnership with the Harvard Medical School and Beth Israel Deaconess Medical Center. All these meetings have led to the publication of major volumes in the Annals of the New York Academy of Sciences. By providing the most recent information in these rapidly advancing neurologic fields, the Mariani Foundation intends to be a reliable and informative source for specialists and journalists in this new area of the developmental neurosciences.
“Neuromusic News”
Direttore responsabile Luisa Bonora
Pubblicazione periodica. Registrazione n. 318 Tribunale di Milano del 10-06-2011

Edited by Fondazione Mariani
Contributors: Luisa Lopez, Giuliano Avanzini, Maria Majno and Barbara Bernardini
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